

99-

544

99-544

R. 3
Government
Publications

C

Canada. Statistics Bureau.
Census (1901), monographic
Income of Canadians.



Digitized by the Internet Archive
in 2023 with funding from
University of Toronto

Canada. Statistics bureau

Census (1961) monographs

Incomes of Canadians

14

INCOMES OF CANADIANS

by
Jenny R. Podoluk

**ONE OF A SERIES OF STUDIES
in the
1961 CENSUS MONOGRAPH PROGRAMME**

**DOMINION BUREAU OF STATISTICS
OTTAWA, CANADA
1968**



*Published under the Authority of
The Minister of Trade and Commerce*

© Crown Copyrights reserved

Available by mail from the Queen's Printer, Ottawa
and at the following Canadian Government bookshops:

HALIFAX
1735 Barrington Street

MONTREAL
Æterna-Vie Building, 1182 St. Catherine Street West

OTTAWA
Daly Building, Corner Mackenzie and Rideau

TORONTO
221 Yonge Street

WINNIPEG
Mall Center Building, 499 Portage Avenue

VANCOUVER
657 Granville Street

or through your bookseller

Price: \$3.00

Catalogue No. CS 99-544/1968

ROGER DUHAMEL, F.R.S.C.
Queen's Printer and Controller of Stationery
Ottawa, Canada
1968

Foreword

The Canadian Censuses constitute a rich source of information about individuals and their families, extending over many years. The census data are used widely but it has proved to be worthwhile in Canada, as in some other countries, to supplement census statistical reports with analytical monographs on a number of selected topics. The 1931 Census was the basis of several valuable monographs but, for various reasons, it was impossible to follow this precedent with a similar programme until 1961. Moreover, the 1961 Census had two novel features. In the first place, it provided much new and more detailed data, particularly in such fields as income, internal migration and fertility, and secondly, the use of an electronic computer made possible a great variety of tabulations on which more penetrating analytical studies could be based.

The purpose of the 1961 Census Monograph Programme is to provide a broad analysis of social and economic phenomena in Canada. Although the monographs concentrate on the results of the 1961 Census, they are supplemented by data from previous censuses and by statistical material from other sources. The present Study examines the income distribution in Canada. In addition, monographs will be published on marketing, agriculture, fertility, urban development, labour force, immigration, and internal migration.

I should like to express my appreciation to the universities that have made possible for members of their staff to contribute to this Programme, to authors within the Dominion Bureau of Statistics who have put forth extra effort in preparing their studies, and to a number of other members of DBS staff who have given assistance. The Census Monograph Programme is considered desirable not only because the analysis by the authors throws light on particular topics but also because it provides insight into the adequacy of existing data and guidance in planning the content and tabulation programmes of future censuses. Valuable help in designing the Programme was received from a committee of Government officials and university professors. In addition, thanks are extended to the various readers, experts in their fields, whose comments were of considerable assistance to the authors.

Although the monographs have been prepared at the request of and published by the Dominion Bureau of Statistics, responsibility for the analyses and conclusions is that of the individual authors.

Walter E. Duffett.

DOMINION STATISTICIAN.

Preface

This study is based upon published and unpublished income data collected on the 1961 Census of Canada and the Surveys of Consumer Finances for selected years. Although responsibility for the contents is that of the author, the monograph could not have been completed without the assistance of many people.

Mr. Herman Miller of the U.S. Bureau of the Census kindly agreed to read the manuscript and provided many helpful suggestions as to revisions. Colleagues at D.B.S., especially on the Consumer Finance Research Staff, assisted in many ways. Mrs. G. Oja, Chief of Research and Surveys, by carefully going through drafts of the manuscript, caught many fallacies in reasoning and errors in the data. Mr. B. Mazikins prepared the estimates of the private returns to investment in education. Mrs. L. Doddridge, Mrs. G. Dolan and Mr. W. Murphy prepared all the statistical tables and carried out the many calculations needed while Mrs. A. Watters miraculously produced a finished manuscript from the many illegible drafts submitted to her for typing. Mr. John Moran and the staff of the Population Sample Section of the Census Division assisted by looking after the production of the special tabulations required from the Census.

Any errors or omissions in the report are, of course, the responsibility of the author.

Jenny R. Podoluk,
Co-ordinator,
Consumer Finance Research,
Dominion Bureau of Statistics.

March 1968.

Table of Contents

Page

FOREWORD	iii
PREFACE	v
LIST OF TABLES	xi
LIST OF CHARTS	xxiii

Chapter

1. INTRODUCTION	1
1. Development of Income Statistics	1
2. Framework for Analysis	4
2. SUMMARY OF CONCLUSIONS	9
1. Individual Incomes	9
2. Earnings of the Labour Force	9
3. Private Returns to Education	11
4. Structure of Family Income	11
5. Regional Distribution of Income	12
6. Low Income and Poverty	13
7. Incomes of the Aged	14
8. Changes in the Income Distribution	15
9. Income Inequality	16
3. INCOMES OF INDIVIDUALS	19
1. Characteristics of Income Recipients	19
2. Characteristics of Income Recipients Within Income Groups	35
3. Income by Age Groups	43
4. EARNINGS BY LABOUR FORCE CHARACTERISTICS	49
1. Determinants of Earnings	51
2. Income from Employment by Characteristics of Worker	53
3. Occupation and Earnings	61
4. Earnings of Male Labour Force by Occupation Characteristics	69
5. Age-Earnings Profiles by Occupation and Level of Schooling	81
Appendix 4.A	89

TABLE OF CONTENTS

	Page
5. PRIVATE RETURNS TO EDUCATION	95
1. Concept of Human Capital	95
2. Social and Private Returns to Human Capital	100
Appendix 5.A. — Notes on Methods	119
6. STRUCTURE OF FAMILY INCOME	123
1. Relationships Between Individual and Family Income Distributions	123
2. Income Distribution of Families	124
3. Family Income Cycle by Age of Family Head	133
4. Family Income by Labour Force Characteristics of Family Head	140
5. Incomes of Families with Female Heads	145
6. Composition of Family Income	147
7. Income of Persons Not in Families	147
7. REGIONAL DISTRIBUTION OF INCOMES	151
1. Population Characteristics	151
2. Income Differentials by Province	156
3. Family Income Distribution	169
8. LOW INCOME AND POVERTY	179
1. Definition of Poverty	179
2. Low-Income Population in Canada	185
9. INCOMES OF THE OLDER POPULATION	207
1. Means of Income Maintenance	207
2. Income Sources of Individuals	210
3. Family Income of the Aged	214
4. Incomes of Family Units	215
5. Sources and Composition of Family Income	230
6. Income Characteristics of Persons Not in Families	233
10. CHANGES IN THE INCOME DISTRIBUTION 1951-1961	239
1. Trends in Wages and Salaries 1921-1961	240
2. Family Income Trends 1951-1961	246
11. INCOME INEQUALITY IN CANADA	265
1. Trends in Income Inequality	265
2. Income Inequality 1951-1961	269
3. Characteristics of Incomes by Quintiles 1951-1961	275
4. Redistribution of Incomes Through Fiscal Policy 1951-1961	283
5. Inequality by Major Source of Income	289

TABLE OF CONTENTS

	Page
APPENDICES	309
A 1961 Census of Canada Definitions and Concepts	309
B Relationship of Income Distribution Estimates to National Accounts estimates of Personal Income	333
C Evaluation of Income Data	347

List of Tables

TABLE	Page
3.1 Percentage Distribution of Total Non-farm Population Aged 15 and Over, Income Recipients and Non-recipients, by Age and Sex, as at June 1, 1961	20
3.2 Percentage Distribution of Population Aged 15 and Over, Income Recipients and Non-recipients, by Sex, Year Ended May 31, 1961	21
3.3 Percentage of Population with Incomes, by Sex and Age, Year Ended May 31, 1961.	21
3.4 Distribution of Income Recipients, by Size of Income and by Sex, Year Ended May 31, 1961	23
3.5 Distribution of Aggregate Income by Income Group and by Sex of Income Recipient, Year Ended May 31, 1961	23
3.6 Sources of Income, by Sex of Income Recipient, Year Ended May 31, 1961	25
3.7 Sources of Income by Sex of Income Recipient and by Income Level, Year Ended May 31, 1961.	27
3.8 Percentage Distribution of Income, by Sex of Income Recipient and by Income Level, Year Ended May 31, 1961	30
3.9 Percentage Distribution of Incomes, by Sex of Income Recipient and by Major Source of Income, Year Ended May 31, 1961	34
3.10 Quartile Limits by Sex and Major Source of Income, Year Ended May 31, 1961	35
3.11 Characteristics of Income Recipients, by Sex within Income Groups, Year Ended June 1, 1961	38
3.12 Percentage Distribution of Incomes by Sex and Age, Year Ended May 31, 1961	42
3.13 Characteristics of Income Recipients, by Sex and Age, as at June 1, 1961	44
4.1 Percentage Distribution of Individuals by Sex, by Labour Force Participation and by Size of Total Income, Year Ended May 31, 1961.	50

LIST OF TABLES

TABLE		Page
4.2	Distribution of Current Non-farm Labour Force, by Sex and by Size of Income from Employment, Year Ended May 31, 1961	52
4.3	Percentage Distribution of Wage-Earners in Current Labour Force by Sex and Size of Wages and Salaries, Year Ended May 31, 1961 .	55
4.4	Average and Median Wages and Salaries, by Age and Sex of Wage and Salary Earners in Current Labour Force Employed in 49 to 52 weeks during Year Ended May 31, 1961	56
4.5	Ratio of Average Wages and Salaries by Age Group to Average Wages and Salaries of Age Group 35-44, Year Ended May 31, 1961	57
4.6	Average Earnings of Wage and Salary Earners and Total Non-farm Labour Force by Sex, Age and Selected Level of Schooling, as at June 1, 1961.	59
4.7	Percentage of Distribution of the Total Current Labour Force by Level of Schooling, as at June 1, 1961	60
4.8	Percentage Distribution of Males and Females in Current Labour Force with Selected Levels of Schooling by Broad Occupation, as at June 1, 1961.	62
4.9	Average Earnings of Males and Females in Current Non-farm Labour Force, by Selected Levels of Schooling, Broad Occupation Groups and Age, Year Ended May 31, 1961	64
4.10	Average Wages and Salaries of All Wage-Earners in Current Labour Force and of All Wage-Earners Employed the Full Year, by Occupation and Sex, Year Ended May 31, 1961	68
4.11	Percentage Distribution of Current Non-farm Male Labour Force by Class of Worker, by Employment Status and Broad Occupation, and by Size of Income from Employment, Year Ended May 31, 1961	70
4.12	Specific Occupations of Non-farm Labour Force Ranked by Average Income from Employment, Lowest and Highest Deciles, Year Ended May 31, 1961	74
4.13	Average Income of Males from Employment, by Age and Selected Occupation, Year Ended May 31, 1961.	82
4.14	Average Income from Employment of Males in the Non-farm Labour Force, by Age and Level of Schooling, Year Ended May 31, 1961 .	87
Appendix		
4.A.1	Average Income from Employment in Current Non-farm Labour Force, by Level of Schooling and by Broad Occupation, Sex and Age Group, Year Ended May 31, 1961	89
5.1	Schooling of Males in Current Labour Force, as at June 1, 1961 . . .	98

LIST OF TABLES

TABLE	Page
5.2 Per Cent of Males Attending School by Age Group, as at June 1, 1961	98
5.3 Private Annual Costs of Secondary Schooling for Males, 1961	103
5.4 Private Annual Costs of University for Males, 1961	103
5.5 Participation Rates by Age and Schooling for Males, 1961	106
5.6 Lifetime Earnings of Males for Selected Ages and Selected Levels of Schooling, 1961	106
5.7 Lifetime Earnings Based on Arithmetic Means for Males Aged 25 to 64, by Years of Schooling Completed, as at June 1, 1961	107
5.8 Discounted Lifetime Earnings.	111
5.9 Additional Income from Employment Received by Males, Year Ended May 31, 1961, as a Result of Completing Selected Levels of Schooling	112
5.10 Costs and Returns to Elementary School Graduates from Completion of Elementary School to Completion of University	113
5.11 Average Earnings for Males Aged 25-34, by Level of Schooling	114
5.12 Ratio of Average Income from Employment by Age Group and Schooling for Males in Current Labour Force, of Canada and the United States	115
Appendix	
5.A.1 Average Earnings for Males Aged 15-19 and 20-24, Year Ended May 31, 1961	119
5.A.2 Average Earnings Foregone for Males Aged 19-22	120
5.A.3 Average Earnings of Males by Age and Selected Levels of Schooling, Cross-Sectional Data, 1961 Census	122
5.A.4 Hypothetical Earnings Estimated from Cross-Sectional Data, 1961 Census	122
<hr/>	
6.1 Percentage Distribution of Families by Size of Income and by Number of Income Recipients, Year Ended May 31, 1961	124
6.2 Relatives Contributing to Family Incomes, Year Ended May 31, 1961	127
6.3 Percentage Distribution of Incomes of Heads of Families by Size of Total Income, Year Ended May 31, 1961	128
6.4 Percentage Distribution of Incomes of Relatives by Size of Total Income, Year Ended May 31, 1961	129
6.5 Quartiles and Medians — Incomes of Heads and Family Income.	129

LIST OF TABLES

TABLE		Page
6.6	Percentage Distribution of Husband-Wife Families by Size of Family Income, Including and Excluding Earnings of Wives, Year Ended May 31, 1961	132
6.7	Percentage Distribution of Incomes of Families With and Without Working Wives by Broad Income Groups, Year Ended May 31, 1961	133
6.8	Percentage Distribution of Incomes of Families by Size of Income and by Age of Head, Year Ended May 31, 1961	135
6.9	Number of Income Recipients in Families, Average Income of Head and Average Family Income, by Age of Head, Year Ended May 31, 1961	137
6.10	Percentage of Families with Wives and Unmarried Children in Receipt of Income, by Age of Head of Family, Year Ended May 31, 1961	138
6.11	Percentage of Family Income Received by Head, Wife and Unmarried Children, by Age of Head of Family, Year Ended May 31, 1961	139
6.12	Average Family Income by Age of Head, Unstandardized and Standardized for the Number of Income Recipients, Year Ended May 31, 1961	139
6.13	Average Incomes of Males, by Age Group, Year Ended May 31, 1961	140
6.14	Average Family Income and Average Employment Income, by Occupation of Family Head or of Worker, Year Ended May 31, 1961	142
6.15	Percentage Distribution of Family Income by Size of Income and by Occupation of Family Head for Families with Male Heads in Current Non-farm Labour Force, Year Ended May 31, 1961	143
6.16	Average Family Income, by Selected Occupation Group and Employment Status of Family Head, Year Ended May 31, 1961	144
6.17	Percentage Distribution of Family Income by Size for Families with Male Head Not in Current Labour Force, Year Ended May 31, 1961	145
6.18	Major Source of Family Income and Composition of Family Income Groups, Year Ended May 31, 1961	148
6.19	Percentage Distribution of Incomes of Unattached individuals by Size of Income and Sex, Year Ended May 31, 1961	149
6.20	Percentage Distribution of Unattached Individuals and Average Income, by Age Group, Year Ended May 31, 1961	149

LIST OF TABLES

TABLE		Page
7.1	Personal Income Per Person, by Province, 1926, 1951 and 1961 . . .	152
7.2	Percentage Distribution of Rural and Urban Population, by Age and by Province, as at June 1, 1961	153
7.3	Participation Rates of Males Aged 15 and Over, by Province, as at June 1, 1961	154
7.4	Percentage Distribution of Male Labour Force by Level of Education and by Province, June 1, 1961	155
7.5	Percentage Distribution of Male Rural Non-farm and Urban Labour Force by Occupation and by Province, as at June 1, 1961	157
7.6	Average Incomes of Rural and Urban and Total Males and Females, by Province, Year Ended May 31, 1961	159
7.7	Ratio of Average Rural and Urban and Total Incomes of Males in each Province to Ontario Average, Year Ended May 31, 1961 . . .	160
7.8	Average Incomes of Males Standardized for Rural and Urban Distribution, by Province, for Year Ended May 31, 1961	161
7.9	Average Incomes of Males, Standardized for Age, Rural and Urban Distribution, by Province, Year Ended May 31, 1961	162
7.10	Average Incomes of Males Standardized by Level of Schooling, by Province, Year Ended May 31, 1961	163
7.11	Average Incomes of Males Standardized by Age, Level of Schooling and Rural and Urban Distribution, by Province, Year Ended May 31, 1961	164
7.12	Average Earnings of Male Non-farm Labour Force, Standardized by Occupation and Rural and Urban Distribution, Year Ended May 31, 1961	166
7.13	Average Income from Employment of Male Non-farm Labour Force Standardized by Occupation, Age and Schooling, by Province, Year Ended May 31, 1961	167
7.14	Percentage Distribution of Non-farm Families by Income Size and by Province, 1961	170
7.15	Upper Quintile Limits of Family Income, by Province, Year Ended May 31, 1961	171
7.16	Proportion of Married Women in Labour Force, by Province, as at June 1, 1961	172
7.17	Average Family Size and Average Number of Children Under Age 16 per Family, as at June 1, 1961	173
7.18	Average Family Income by Size of Place of Residence, Year Ended May 31, 1961	174

LIST OF TABLES

TABLE	Page
7.19 Average Family Income, Standardized by Place of Residence, Year Ended May 31, 1961	174
7.20 Average Incomes of Families, by Age of Head and by Province, Year Ended May 31, 1961	176
7.21 Average Family Incomes, by Selected Levels of Schooling of Family Head, by Province, Year Ended May 31, 1961	177
7.22 Average Family Incomes, by Selected Occupations of Family Head and by Province, Year Ended May 31, 1961	177
8.1 Selected Characteristics of All Families and of Low-Income Families, Year Ended May 31, 1961	187
8.2 Incidence of Low Income Among Persons Not in Families, by Sex and Age, Year Ended May 31, 1961	194
Appendix	
8.A.1 Estimated Number of Low-Income Units, by Size of Unit, Sex of Head and Size of Income, Year Ended May 31, 1961	195
8.A.2 All Families and Low-Income Families, by Provinces of Residence and Size of Place of Residence, Year Ended May 31, 1961	196
8.A.3 All Families and Low-Income Families, by Size of Family, Sex and Age of Head, Sex and Number of Children, Year Ended May 31, 1961	197
8.A.4 All Families and Low-Income Families, by Other Selected Characteristics, Year Ended May 31, 1961	199
8.A.5 Income Composition of Incomes of Low-Income Families by Sex of Head, Year Ended May 31, 1961	202
8.A.6 All Persons Not in Families and Low-Income Persons Not in Families, by Province of Residence and Size of Place of Residence, Year Ended May 31, 1961	202
8.A.7 All Persons Not in Families and Low-Income Persons Not in Families, by Sex and Other Selected Characteristics, Year Ended May 31, 1961	203
9.1 Composition of Incomes of Persons Aged 65-69 and 70 and Over, by Sex and Income Group, Year Ended May 31, 1961	211
9.2 Average and Median Incomes of Persons Aged 65-69 and 70 and Over, by Sex and Marital Status, Year Ended May 31, 1961	216
9.3 Percentage Distribution of Incomes of Persons Aged 65-69 and 70 and Over Resident with Relatives, Year Ended May 31, 1961	218

LIST OF TABLES

TABLE	Page
9.4 Percentage Distribution of Incomes of Persons Not in Families Aged 65-69 and 70 and Over, Year Ended May 31, 1961	219
9.5 Percentage Distribution of Families with Heads Aged 65-69 and 70 and Over, by Size of Income and Sex of Head, Year Ended May 31, 1961	219
9.6 Percentage Distribution of Income-Recipients in Families with Heads Aged 65-69 and 70 and Over, by Number in Family and Sex of Head, Year Ended May 31, 1961	220
9.7 Percentage Distribution of Family Income in Families with Heads Aged 65-69 and 70 and Over, by Major Contributor and Sex of Head, Year Ended May 31, 1961	221
9.8 Percentage Distribution of Heads of Families Aged 65-69 and 70 and Over, by Sex and by Size of Total Income, Year Ended May 31, 1961	222
9.9 Percentage Distribution of Husband-Wife Families, by Number of Income Recipients and by Size of Total Family Income, Year Ended May 31, 1961	223
9.10 Average Family Income, by Family Size and by Age of Head, Year Ended May 31, 1961	225
9.11 Percentage Distribution of Families with Heads Aged 65-69 and 70 and Over, by Size of Family and by Size of Income, Year Ended May 31, 1961	226
9.12 Percentage Distribution of Incomes of Families with Male Heads Aged 65-69 and 70 and Over, by Labour Force Participation of Head and by Size of Family Income, Year Ended May 31, 1961	228
9.13 Percentage Distribution of Incomes of Families with Male Heads Aged 65-69 and 70 and Over, by Level of Education of Head and by Size of Family Income, Year Ended May 31, 1961	229
9.14 Percentage Distribution of All Families with Heads Aged 65-69 and 70 and Over by Major Source of Income, and Average and Median Incomes by Major Source, Year Ended May 31, 1961	231
9.15 Percentage Composition of Incomes of Families with Heads Aged 65-69 and 70 and Over, by Income Level, Year Ended May 31, 1961	232
9.16 Percentage Distribution of Incomes of Persons Not in Families Aged 65-69 and 70 and Over, by Sex, by Labour Force Participation and by Size of Total Income, Year Ended May 31, 1961	233
9.17 Average and Median Incomes of Persons Not in Families Aged 65-69 and 70 and Over, by Sex and by Level of Education, Year Ended May 31, 1961	234

LIST OF TABLES

TABLE	Page
9.18 Percentage Distribution of Persons Not in Families Aged 65-69 and 70 and Over, by Sex and by Major Source of Income, and Average and Median Incomes by Major Source, Year Ended May 31, 1961 .	235
9.19 Composition of Income of Persons Not in Families Aged 65-69 and 70 and Over, Year Ended May 31, 1961	236
10.1 Average Wages and Salaries of Male Wage-Earners in Current and 1961 Constant Dollars, by Age Group, Censuses 1921-1961 . . .	242
10.2 Percentage Distribution of the Male Labour Force, by Occupation Division, 1921, 1941 and 1961	244
10.3 Percentage Distribution of Incomes of Unattached Individuals and Families in 1961 Constant Dollars, Selected Years 1951-1961 .	247
10.4 Percentage of Houses with Selected Household Facilities, 1951 and 1961	249
10.5 Composition of Income by Income Level in 1961 Constant Dollars, 1951 and 1961	251
10.6 Percentage Distribution of Incomes of Families by Major Source of Income and by Size of Income in 1961 Constant Dollars, 1951 and 1961	252
10.7 Percentage Distribution of Families by Employment Status of Head and by Size of Income in 1961 Constant Dollars, 1951 and 1961 .	253
10.8 Percentage Distribution of Family Income in 1961 Constant Dollars, by Sex of Family Head, 1951 and 1961	254
10.9 Percentage Distribution of Families by Income Group in 1961 Constant Dollars, and by Age of Head, Selected Years 1951-1961 .	256
10.10 Percentage Distribution of Families with 1961 Constant Dollar Incomes Below \$2,000 and Above \$7,000, by Age of Family Head, 1951 and 1961	258
10.11 Average and Median Incomes of Unattached Individuals in 1961 Constant Dollars, Selected Years 1951-1961	261
10.12 Percentage Distribution of Incomes of Families in 1961 Constant Dollars by Size of Family, 1951 and 1961	261
10.13 Percentage Distribution of Incomes of Families in 1961 Constant Dollars, by Region, 1951 and 1961	262
10.14 Percentage Distribution of Incomes of Families in 1961 Constant Dollars, by Size of Municipality, 1951 and 1961	264
11.1 Percentage Distribution of Personal Income by Source, Selected Years 1931-1961	266

LIST OF TABLES

TABLE	Page
11.2	Percentage Distribution of Wages and Salaries of Wage and Salary Earning Families, by Quintiles, 1930-1931 and 1951 268
11.3	Percentage Distribution of Families by Size of Family Income Year Ended may 31, 1961 274
11.4	Percentage Distribution of Families by Size of Per Capita Income, Year Ended May 31, 1961 274
11.5	Upper Limits of Quintiles in Current Dollars, Selected Years, 1951-1961 275
11.6	Percentage Distribution of Income Recipients and Income Earners, Within Quintiles, by Families and Family Units, 1951 and 1961 . 281
11.7	Gini Ratios, Selected Years 1951-1961 287
11.8	Percentage Distribution of Family Units, Gross Income, Taxes and Disposable Income, by Income Groups, 1951 and 1961 288
11.9	Gini Ratios by Major Source of Income of Family Unit for Gross Income and Disposable Income, Selected Years 1951-1961 290
11.10	Gini Concentration Ratios for Distribution of Total Income, Income Exclusive of Transfer Payments and Income Exclusive of Investment Income, 1951 and 1961 291

Appendix

11.A.1	Percentage Distribution of Income Components and Total Income by Quintiles of Families and of Families and Unattached Individuals, Selected Years 1951-1961 293
11.A.2	Percentage Composition of Income Within Quintiles of Families and Unattached Individuals, Selected Years 1951-1961 295
11.A.3	Percentage Distribution of Families and of Families and Unattached Individuals by Major Source Within Quintiles, Selected Years 1951-1961 297
11.A.4	Percentage Distribution of Unattached Individuals and of Heads of Families, by Age Within Quintiles, 1951 and 1961 299
11.A.5	Percentage Distribution of Unattached Individuals and of Heads of Families, by Sex Within Quintiles, 1951 and 1961 301
11.A.6	Percentage Distribution of Families by Size of Family and by Number of Children Under Age 16 Within Quintiles, 1951 and 1961 302
11.A.7	Percentage Distribution of Families and of Families and Unattached Individuals by Employment Status of the Head Within Quintiles, 1951 and 1961 303

LIST OF TABLES

TABLE	Page
11.A.8 Percentage Distribution of Families and of Families and Unattached Individuals by Regions, Within Quintiles, 1951 and 1961	304
11.A.9 Percentage Distribution of Families and Unattached Individuals by Place of Residence, Within Quintiles, 1951 and 1961	305
11.A.10 Distribution of Gross Income, Taxes, Disposable Income and Transfer Payments of Families and Unattached Individuals, by Size of Income, Selected Years 1951-1961	306

APPENDICES

A.1 Reconciliation Between Population Aged 15 and Over Resident in Private Non-farm Households and Total Population, 1961 . . .	312
A.2 Total Labour Force and Labour Force Resident in Private Non-farm Households, by Broad Occupation and Sex, June 1, 1961	319
A.3 Total Population Aged 15 and Over and Population Aged 15 and Over Resident in Private Non-farm Households, by Province, June 1, 1961	320
A.4 Comparison of Family Income Distributions, by Size, on Census Family and Economic Family Definitions, Year Ended May 31, 1961	322
A.5 Comparison of Income Distribution, by Size, of Persons Not in Families, by Sex, on Census and Economic Family Unit Definition, Year Ended May 31, 1961	323
A.6 Numbers of Families and Persons Not in Families, by Age Group, on Census and Economic Family Definitions, June 1, 1961	324
B.1 Personal Income, by Source, 1961	334
B.2 Employer and Employee Contributions to Social Insurance and Government Pension Funds, 1961	335
B.3 Interest, Dividends and Net Rental Income of Persons, 1961	338
B.4 Transfer Payments from Government, 1961	339
B.5 Adjusted Personal Income, 1961	341
B.6 Comparisons of Census Income Estimates, Year Ended June 1, 1961 with National Accounts Personal Income Estimates, Year Ended June 30, 1961	342
C.1 Number of Persons with Incomes of \$10,000 and Over According to Census and Taxation Statistics, by Major Source, 1961 and 1961	350
C.2 Aggregate Income Reported by Individuals with Incomes of \$10,000 and Over According to Census and Taxation Statistics, by Major Source, 1960 and 1961	350

LIST OF TABLES

TABLE		Page
C.3	Distribution of Income of Families and Unattached Individuals Among Quintiles, 1961	353
C.4	Income Shares of Top Quintile of Families and Unattached In- dividuals, Selected Years 1951-1959	353
C.5	Percentage Distribution of Families and Family Income by Size of Income, 1961 Survey and 1961 Census	354
C.6	Average and Median Incomes by Selected Family Characteristics, 1961 Survey and 1961 Census	355

List of Charts

CHART	Page
3.1 Percentage Distribution of Income Recipients by Size of Income by Age and by Sex, Year Ended May 31, 1961	24
3.2 Composition of Individual Incomes by Income Level, Year Ended May 31, 1961	26
3.3 Percentage Distribution of Incomes of Males by Size of Income and by Age, Year Ended May 31, 1961	46
4.1 Average Income from Employment by Age Groups for Selected Broad Occupations, Year Ended May 31, 1961	83
4.2 Ratio of Average Income from Employment by Age Groups to Average Income from Employment for Age Group 25-34, for Selected Occupations, Year Ended May 31, 1961	85
4.3 Ratio of Average Income from Employment by Age Groups to Average Income from Employment for Age Group 25-34, by Level of Schooling, Year Ended May 31, 1961	87
6.1 Percentage Distribution of Families by Size of Income and by Number of Income Recipients, Year Ended May 31, 1961	125
6.2 Cumulative Income Distributions of Husband-Wife Families with Working Wives, Including and Excluding Wives' Earnings, Year Ended May 31, 1961	134
6.3 Percentage Distribution of Incomes of Families by Size of Income and by Age of Head, Year Ended May 31, 1961	136
6.4 Percentage Composition of Family Income by Income Group, Year Ended May 31, 1961	146
7.1 Ratio of Average Income of Males, Canada and Provinces to Ontario Average, Year Ended May 31, 1961	160
8.1 Incidence of Low Income by Selected Family Characteristics	190
10.1 Percentage Distribution of Families by Size of Income for 1951 and 1961 Constant Dollars	248
10.2 Percentage Distribution of Families with Incomes of Less than \$2,000 and Incomes of \$7,000 or More, by Age of Head, for 1951 and 1961, in 1961 Constant Dollars	255

LIST OF CHARTS

CHART	Page
11.1 Lorenz Curve	272
11.2 Distribution of Family Income by Size of Total Income and by Size of Per Capita Family Income, 1961	273
11.3 Upper Limits of Quintiles in Current Dollars for Families, Selected Years 1951-61	276
11.4 Percentage Distribution of Families in the Lowest Quintile by Selected Characteristics, 1951 and 1961	279

Chapter One

INTRODUCTION

1. DEVELOPMENT OF INCOME STATISTICS

This is one of a series of monographs to be released as special studies of statistical data collected in the 1961 Census of Canada and on other surveys conducted by the Dominion Bureau of Statistics. This study undertakes to analyze various aspects of the income size distribution in Canada. The distribution of income by size usually measures how many or what proportion of persons or families have incomes of different sizes, for example, under \$1,000, \$2,000 to \$3,000 and so forth or, in summary, how aggregate income is divided and the share of different groups in this division.

Different analytic needs require different approaches to investigations of the income distribution. Interest focuses mainly on two areas: first, how income originates and how it is diffused through the population and, secondly, what recipients do with their incomes — for example, how income influences consumer to spending and saving. It is usually the individual who has a claim to income because of labour force participation or through ownership of assets or because of some personal characteristic such as age. Thus, any study of the means by which income is diffused throughout the population and of the casual factors in the inequality of income, the study of individuals, their sources of income and their characteristics must be the starting point — that is, investigations into the determinants of the amount of income received must be carried out largely through the analysis of the income sources of the individual which can be considered the end result of the process of the distribution of income. Part of this study is devoted to such an analysis.

The family is usually the decision-making unit in respect to the disposition of income and is a more appropriate unit for the study of causal factors which may influence consumer decisions than is the individual. It is also the more appropriate unit for studies of the welfare of the population or for the exploration of problems such as poverty. The combined financial resources of the family unit, rather than the income of individual family members, determine the level of living which can be achieved by the family. Some sections of this monograph are, therefore, devoted to the analysis of the family income distribution and the inter-relationship between individual and family incomes.

Concern with the distribution of income among the population has a long historical background. The earliest attention to the subject of income distributions

resulted from a concern with relative economic welfare. The industrial revolution of the 18th and 19th centuries led to substantial increases in the aggregate wealth and income of society. Despite this, large segments of the population did not share in the economic progress that came from technological change. Much of the early attention centred on attempts to estimate the size and characteristics of the population living in poverty. For example, one of the empirical studies which had the objective of examining poverty was carried out in the United Kingdom at the end of the 19th century.¹ This study had a substantial influence on subsequent research in North America as well as in Great Britain.

The 20th century, especially the recent decades, has been characterized in many of the more developed countries by important gains in real income and improvements in the level of living of the populations. Despite this, the interest in the relative distribution of income is even greater than in earlier times and the uses to which income statistics are being put have multiplied considerably.

Although the needs for statistics on income distributions are of long standing in Canada, as in other countries, such statistics as exist are usually of very recent origin. For Canada, comprehensive estimates are only for the postwar years. The explanation as to why development of data has taken so long lies partially in the fact that, although Canada came into existence as a nation in 1867, the systematic development of statistics began only with the setting up of the Dominion Bureau of Statistics in 1918.

It has been suggested that the path of progress in the collection of statistical data in the economic field is from population to production and production to distribution. A natural beginning is the collection of census data on the qualitative aspects of population — people as the substance of the nation and, in fact, population statistics were among the first statistics to be collected in what is now Canada. The first census of New France took place in the 17th century and the present program of decennial censuses was started in 1851, well before Confederation and nearly seventy years before the setting up of a central statistical agency. After developing an inventory of the population and its characteristics, the next logical step in the development of statistical data is to proceed to ascertain what the population produces and, finally, turn attention to the distribution of the result of economic activity among individuals or families.

Certainly Canadian statistical development has followed this pattern — statistics on industrial and agricultural production data along with data on trade followed the development of population data. Not until the 1930s were attempts made to produce global estimates of national income for a series of years, in

¹The study B. Seebohm Rowntree described in *Poverty: A Study of Town Life* (London: Thomas Nelson and Sons, no date) was carried out in 1899.

connection with the work of the Rowell-Sirois Commission.² The annual publication of data on the gross national product and on aggregate personal income did not begin until the 1940s while research on the distribution of income by size was initiated a few years later.³ The collection of income statistics through periodic sample surveys of households was started only in 1952 and a number of surveys were carried out between 1952 and 1961.⁴ In 1961 the scope of the 1961 Census of Canada was expanded to collect income data from a 20 per cent sample of non-farm households.

Although consistent statistics on the income distribution are available only for the period following 1951, in fact, the need for some information in this area was recognized in the early stages of Canadian statistical development. The 1901 Decennial Census of Canada collected earnings data from wage-earners and these statistics were published in 1907 in a bulletin entitled *Wage-Earners by Occupation*. Although this report did not show the distribution of earnings by size, it published statistics on average earnings by sex and occupation. Since 1901, statistics on wages and salaries have been collected on each decennial census although much of the very early material was not published; further, changes in concepts and classifications used make it difficult to compare data from census to census, except in very general terms.

Another source of limited income information in the inter-war years was income-tax statistics. The first income taxes were imposed in Canada in 1917 and in the early 1920s annual publication commenced of statistics on the number of taxpayers by level of taxable income, by region and so forth. During the decades before the Second World War exemption levels were high enough to exempt most of the income-receiving population from paying income taxes. As an example, in 1938 out of a labour force consisting of 4,500,000 persons, the number of persons paying taxes was only 337,000. The outbreak of the Second World War led to the imposition of income taxes on lower levels of income for the financing of the war effort. At the same time, incomes began rising substantially. As a result, an increasing proportion of the working population began to file tax returns. Since the end of the war, incomes have continued to rise while exemption levels have remained unchanged for over a decade. The majority of the income-receiving population now files income-tax returns annually and these statistics are another source of information on aspects of the income distribution. These data have been used to evaluate the quality of income data collected through surveys and to estimate tax incidence by income level. The tax structure is such that the

²These estimates were prepared by D.C. MacGregor *et al* and published by the Royal Commission on Dominion-Provincial Relations as Appendix 4, *National Income* (Ottawa: King's Printer, 1939).

³Although official annual publication of national income estimates did not start until the 1940s, estimates were prepared for the years 1926 on.

⁴Income data were collected in conjunction with the 1948 Family Expenditures Survey but the concepts are not consistent with later surveys.

statistics provide only data on individual incomes by selected characteristics such as sex and age and not on family incomes.

The different statistical series are discussed in detail in the appendices and their interrelationships are outlined. Because, until recent years, only limited data existed and because the 1961 Census was the first census to ask comprehensive questions on income, this study has had to draw on a number of the sources outlined above, in addition to the census, for statistical material. For example, most of the analysis of changes in the income distribution for the decade preceding 1961 must be based upon an examination of survey data.

2. FRAMEWORK FOR ANALYSIS

As already indicated, income statistics have a multiplicity of uses and are required for many purposes and since it is not possible to explore in a single volume all possible facets of income statistics, this study is restricted to a description of selected broad features of the Canadian income distribution.

The focus is on two series of income statistics: those of individuals and those of family units. Chapter Three consists of an examination of the income distribution of the adult population — the sources of such income and the factors influencing such income. The most important source of income or the main determinant of income levels is income from employment and Chapter Four examines labour force participation and the characteristics that affect the level of earnings such as occupation, age and education. Education is possibly the most significant variable that influences earnings and Chapter Five considers the relationship between private investment in education and the returns to education.

Many individuals in receipt of incomes are not heads of families but secondary contributors to family income, for example, working wives. The interrelationships between individual incomes and family incomes are explored in Chapter Six and some of the characteristics of the family-income distribution and the family-income cycle examined. The factors influencing regional differentials in both individual and family incomes are discussed in Chapter Seven.

The problem of poverty and its causes is a chronic one, even in Canada which has one of the highest income levels in the world. Chapter Eight discusses the statistical problems in defining poverty and focuses on those characteristics of the low-income population that may be attributes of poverty. It is well recognized that there is a strong correlation between age and low income and Chapter Nine provides a detailed analysis of the incomes of the aged who constitute an important segment of the low-income population.

Chapters Ten and Eleven are devoted to several special aspects of the income distribution: changes in the income distribution in the 1950s, income inequality in Canada and the role of government policy in redistributing incomes. The Appendices to the monograph include explanations of concepts and methodology,

valuation of census and survey data and discuss the relationships and comparability of various official income series.

The problems of defining income, measuring it and interpreting the data will be discussed in some detail in the relevant chapters. In all chapters, the income distribution is analyzed primarily in terms of the distribution of gross cash income before deductions for taxes from sources such as wages and salaries, pensions and investments. In a market economy such as that of Canada, money income is the most significant indicator of the probable level of well-being of the population; but it must be recognized that cash income should not necessarily be equated with real income or what has been termed "economic" income. The importance of non-money income as compared to cash income varies from period to period and the form in which non-money income is received has changed as the economy has matured from a predominantly rural agricultural economy to an urbanized industrial one. In a rural economy home production as, for example, of food, fuel and clothing and payment of wages in kind may be important means by which essential commodities are obtained by the family. In an urbanized economy cash payments received in return for services or labour are used to purchase goods through the open market. However, goods and services obtained privately may be supplemented by perquisites or fringe benefits provided in conjunction with employment, for example, through the use of a company car, the provision of free medical care, stock options or expense accounts. The implications of the income concepts for the measurement of income inequality, income change through time and income differentials between groups are discussed more fully in subsequent chapters such as Chapter Ten.

The shape of any income distribution is obviously influenced by the way in which aggregate income is shown to be dispersed throughout the population. The two main income distributions studied in this monograph — that of individuals and that of families — can be designated as general purpose distributions; for some purposes, such as studies of changes in income equality through time, other types of income distributions may be more meaningful. Chapters Three, Nine and Eleven discuss upon the importance of the income recipient unit used in interpreting income differentials and changes.

The incomes analyzed in this report are the incomes received over the previous twelve-month period or the most current income. For many individuals and families the most recent annual income may be an unsatisfactory indicator of what has been termed the "permanent" income. Incomes usually change as the life cycle of the individual or family changes with the lowest income levels prevailing among the youngest and the oldest age groups. As a result some segments of the population are experiencing rising incomes while others may be on a declining income curve. Furthermore, the shorter the time period the more likely it is that the level of income may be affected by transitory factors such as illness or unemployment. Income data for a longer period than one year are required to investigate

the normal levels of income. This problem will also be commented upon in more detail in subsequent chapters such as Chapter Eight.

For income comparisons through time, current dollar incomes cannot, in themselves, be used to determine movements in real incomes through time as changes in price levels may balance shifts in income levels. Ideally, for temporal comparisons, income distributions should be deflated to take out price effects. The deflation of income distributions presents considerable problems because only rarely are appropriate price indices available for deflation purposes and the statistician usually has to fall back on the use of whatever indices are readily available. Chapter Ten discusses the statistical difficulties of measuring real-income change and income movements during the decade preceding the 1961 Census in constant dollars as well as current dollars, using the consumer price index as a deflator.

Differences in levels of income between regions and between countries present equal difficulties of interpretation because of differences in the demographic characteristics of the population (such as family size), the age distribution of the population, differences in price levels or differences in consumption patterns. As Chapter Seven shows, regional differences in income levels are accompanied by regional differences in family size and in population characteristics. In drawing conclusions as to the real-income differentials existing between regions, account must be taken of the variations in other characteristics.

For comparative purposes, incomes have been standardized on a number of characteristics such as the rural-urban population distribution. Some of the regional income differentials can be explained by regional differences in such characteristics but not all of them. Other factors such as the productivity of the labour force and the industrial structure, and the more limited national resources may also result in income differences. The monograph can only examine some of the population characteristics which affect the level of incomes.

In examining long-run income trends statisticians are confronted with the fact that the composition or characteristics of the unit of measurement may have changed in such a way as to complicate the interpretation of income-trend data. For example, through time the composition of family units may undergo changes. Improved economic conditions in the postwar years have led to an undoubling of related generations so that a higher proportion of the aged maintained separate residences in 1961 than in 1951. This means that in earlier periods younger generations assumed greater responsibilities for the care of the elderly than in present times. Such changes in living arrangements affect the conclusions which can be drawn as to income trends for the different age groups. The implications of these changes are discussed in Chapters Nine and Ten.

The purpose of this monograph is to draw a broad picture of some of the more significant features of the Canadian income distributions from the data which have accumulated since 1951 and from the data collected on the 1961 Census of

Canada. In many cases the statistics available are not comprehensive enough to allow for the analysis of the varied problems which research workers would like to study in order to arrive at a better understanding of the Canadian income structure. Frequently the statistics available raise questions which cannot be answered with the kind of statistics that have been developed. Also, time did not permit an analysis of all income data that was collected on the census or surveys. It was originally intended to include in this monograph some analysis of the incomes and other characteristics of the postwar immigrants, to carry out some comparisons of the Canadian and American income distributions, to examine the housing of Canadian families by income level and to use other sources of data to examine the characteristics of the farm population. Although it was not possible to carry out this analysis in the monograph, future studies may be undertaken on some of these subjects. In the further development of programs for the collection and analysis of income data attention will be given to filling in some of the gaps which were evident in the data and to expanding the analytical material with a view to making possible more intensive studies of income characteristics and trends.

Chapter Two

SUMMARY OF CONCLUSIONS

1. INDIVIDUAL INCOMES

Incomes in 1961 were very widely distributed with nearly three quarters of the population aged 15 and over in receipt of an income; however, these ratios differed for men and women. Among men, the only group having a significant proportion without incomes were young males in the age group 15 to 24; these would be largely students still dependent upon their parents. In all other age groups; 97 to 99 per cent of males had cash incomes from some source. Somewhat over half of women had incomes exclusive of family allowances. The lower incidence of income recipients is explained by the fact that 84 per cent of women without incomes were married and thus did not work or own income-producing assets.

Incomes of women were substantially lower than those of men; median incomes were less than one third of those of males and average incomes were less than one half. For both sexes, earnings from employment as a wage or salary earner, from the operation of a business or from a professional practice, were the most important source of income, with various types of government transfer payments ranking next in importance. Income from income-yielding investments such as stocks or bonds tended to be a secondary income receipt for most income recipients, although women were more likely to receive this as a main source than were men.

A strong correlation existed between income and age among the male population; low-income recipients were predominantly concentrated in the youngest and oldest age groups. The highest average incomes were reported by males in the middle age groups who had probably reached their peak earnings level. The relationship between age and income was less positive among women. The majority of women recipients were secondary contributors to family income and only a minority supported themselves or their families. This was especially the case for those between 25 and 54 years of age, many of whom might have had only a part-time attachment to the labour force.

2. EARNINGS OF THE LABOUR FORCE

The amounts of income that can be earned from employment as a wage or salary earner or in operating a business or professional practice through labour

force participation are the most important determinants of the income levels of the adult income-receiving population. The disparities between male and female incomes, evident among all income recipients, persist even when comparisons are restricted to members of the labour force. The average income from employment of the female labour force was still less than half of the average earnings reported by the male labour force. The data suggest that the two most important factors in census data which explain these variations in earnings are the differences in the number of weeks worked during the year and the differences in the occupational structure. Women have adopted a different lifetime working cycle from men while, even when working, the labour force attachment of much of the female labour force is weaker than that of men. The female labour force was concentrated in a much more limited number of occupations than was the male labour force. A smaller proportion of women occupied managerial positions or pursued those occupations, such as law and medicine, which rank at the top of the earnings structure.

Earnings by age showed little variation for the female labour force but were significant for males. In occupations requiring education and training, on-the-job experience acquired through the working years helped to raise earnings. This discontinuous work history of much of the female labour force might be such that, for equivalent age groups, the female labour force was less experienced than the male labour force and hence experience did not operate to raise female earnings to the same extent as for males. Although some age-earnings variations were evident between age groups for the female labour force when earnings were examined by level of schooling, they were less pronounced than for the male labour force.

Another factor that may result in inequality of earnings for male and female workers where other characteristics such as occupation, age and experience are similar is discrimination in respect to wage rates or salaries. Statistics on wage rates suggest that many industries traditionally have had lower rates of pay for women workers doing work equivalent to male workers. Although in some provinces there is legislation against such wage discrimination in practice it is difficult to eliminate. No statistical data exist on the extent to which earnings are affected by differential pay scales.

A ranking of male occupations by size of average annual earnings shows that occupations in the lowest deciles were characterized by limited education and substantial inequality probably resulting from insecurity of employment in these occupations and erratic employment patterns. These occupations consisted primarily of labourers, occupations in the service trades and production workers in jobs requiring little skill. Above-average levels of schooling were characteristic of the occupations that constituted the top deciles; most of these occupations were in the professional or managerial categories. Occupations in the top decile were also characterized by very substantial inequality of earnings, because of the wide range of earnings that were possible in such occupations. The occupations showing the most marked differentials in earnings by age were those occupations that

required higher levels of schooling. Education appeared to be the most important explanation of inter-occupation and inter-age differences in earnings.

3. PRIVATE RETURNS TO EDUCATION

In recent years economists have turned their attention to the role of "human capital" in economic development as distinct from physical capital and have attempted to measure the investment in human capital, the social and private returns to such investments and the contribution of such investment to economic growth. Human capital has been defined as the amount of education embodied in the population or the labour force. Several approaches have been used to measure quantitatively the effect on incomes of investment in education; for example, by the estimation of lifetime income streams by levels of education and the rate of return realized from such investments. The different estimates indicate that the more highly educated the worker the higher the income streams received, although the relative differentials are dependent upon the assumptions made about discounting and costs. For Canada, estimates of the private returns to completion of secondary school suggest that in 1961 the gross before tax return was about 16 per cent while the return to a university degree was about 20 per cent. This appears to be the reverse of American experience where estimates suggested that higher rates of return occurred for high school graduation than for university graduation. A higher education was a scarcer attribute in Canada and this might be a factor in higher returns.

4. STRUCTURE OF FAMILY INCOME

Many individuals with incomes are wives, children or other relatives of family heads so that many families are not solely dependent upon the income of the head; in the year preceding the Census only 43 per cent of families contained only one income recipient. In approximately 37 per cent of families, wives had their own incomes while in one fifth of families unmarried children were also contributors to family income. There is evidence to suggest that in recent years wives have replaced unmarried children as the most important secondary contributors to family income. This has resulted from the growing employment of married women, the lengthening of the years of schooling for children, and the drop in the age at which children leave home to marry. Extensive labour force participation of married women, except during the wartime period, is a recent phenomena in Canada. An examination of the characteristics of working wives suggests that participation is higher in families where there are no pre-school-age children and is higher where husbands' earnings are low.

Of all non-farm husband-wife families, approximately 25 per cent had wives who worked during the year. Families with working wives had average incomes of \$6,400 in contrast to an average income of \$5,700 for families where the wife did not work. However, if wives had not worked, incomes in these families would have been lower than those of other families; on average, wives earned \$1,600.

Although the contributions of wives and children to family income have a significant effect on the level of family income, as might be expected, this effect was more pronounced at some stages of the family life cycle than at others. In very young families, with heads under 25 years of age, wives tended to continue working immediately after marriage; somewhat over half of these families had two or more persons in receipt of an income. During those years when families have very young children, where heads of families were between 25 and 44 years of age, labour force participation of wives declined and families were largely dependent upon the earnings of the head. As children reach school age, wives re-enter the labour force and when the head reaches middle age, children also become important as additional contributors to family income. Among families with heads aged 25 to 34, approximately 61 per cent were dependent upon one income as against only 32 per cent where heads were aged 45 to 54. It was in this latter age group that the highest levels of family income were attained, an average of \$6,800 in contrast to an average income of \$4,400 among families whose heads were under 25 years of age.

Although the financial contributions of wives and children do much to improve the income position of families, the head of the family is still usually the most important contributor to family income even in families with three or more income recipients. Variations in family income were thus correlated with the characteristics of the head as well as with the number of persons in receipt of income. Family incomes were lower for families whose heads were in occupations with low earnings, for example, service occupations, labourers and fishermen and were lower for families whose heads had limited education than for families whose heads had a higher education.

5. REGIONAL DISTRIBUTION OF INCOME

A characteristic of the Canadian economy is the existence of substantial regional disparities in economic and demographic characteristics such as the level of income, extent and persistence of unemployment and the educational level of the population. The factors creating regional income differentials are complex and varied — the industrial structure, the availability of natural resources, the age structure of the population, the productivity, skills and education of the labour force and many more.

A grouping of provinces by levels of income would rank together Ontario, British Columbia and Alberta as the wealthiest areas; and the second group would consist of Quebec, Manitoba and Saskatchewan; the lowest levels of income exist in the Atlantic Provinces.

Not only were incomes in 1961 lower in the Atlantic Provinces but greater internal inequality of income existed between rural and urban incomes within the region. In all provinces, incomes in rural areas were substantially lower than those in urban areas but internal differentials were greater in the poorer provinces than in the more prosperous ones. As a result, interprovincial differences in urban

incomes were not as pronounced as in rural incomes. Along with greater intra-provincial income inequality, the less well-to-do provinces had much higher proportions of their population resident in rural areas. At the same time, their populations had an age distribution containing greater concentrations of persons in the dependent non-working age groups and labour forces with lower levels of education. The occupational composition of the labour force was more heavily weighted with jobs in which earnings were low. The difference in the allocation of population between rural and urban residence is important in explaining income differentials between the Atlantic Provinces and Saskatchewan as compared with Ontario, while lower levels of education for the labour force in the Atlantic Provinces and Quebec as compared with Ontario also appears to explain some of the interprovincial differentials between these provinces.

Family income differentials interprovincially were very similar in 1961 to the male income differentials although family characteristics differed in a number of respects. Married women had much higher participation rates in Ontario and the western provinces than in Quebec and the Atlantic Provinces. However, average family size was larger in the eastern provinces so that, although wives were less likely to work, children were more likely to be contributors to family income so that, on balance, differences in the number of income recipients were not a factor in explaining family income variations.

6. LOW INCOME AND POVERTY

A concern with poverty, its characteristics and its implications for economic and social policy motivated much of the early research on the income and consumption patterns of families and households. In attempting to define poverty, statisticians are concerned with the development of objective criteria which can be used to delineate the size and characteristics of the population in poverty. The level of income is usually considered to be the most significant characteristic that may identify poverty or substandard levels of living. It is recognized that income, in itself, is an unsatisfactory indicator and the most popular approach to measuring poverty statistically is to develop minimum budget requirements for families with differing characteristics and then to determine what proportions of family units have incomes insufficient to meet the estimated budget needs. The standards embodied in budgets are usually subjective ones that are very much influenced by prevailing levels of income and, as a result, standards tend to change as income levels within the country change. Each period of time then has a concept of poverty which is conditioned by contemporary circumstances and which usually differs from concepts of earlier periods.

In economies with high and rising levels of real income, such as Canada and the United States, poverty to an increasing extent is becoming associated with specific groups rather than a characteristic widely associated with all segments of the population; in modern times it has tended to become concentrated among the non-working population. If, for example, heads are female, heads are not in the

labour force or heads are aged 65 and over, the probability of poverty is well above average. A combination of these characteristics increases the probability of poverty.

No official criterion of poverty has, as yet, been adopted in Canada as data are not available from which to estimate budget requirements embodying different levels of living requirements, especially minimum requirements. For purposes of this monograph, a low-income definition rather than a poverty definition was adopted, based upon a combination of family size and income ranging from \$2,500 for a family of two to a family income below \$4,000 for a family of five or more. Urban family expenditures data suggest that at such income levels most income must be allocated to the basic necessities such as food and shelter, leaving little or no discretionary income available to the family.

Under this definition, the proportion of persons not in families who had low incomes was over 50 per cent while the proportion of families with the selected characteristics was 25 per cent. In total, these family units contained nearly 27 per cent of the non-farm population.

The proportion of families with low incomes was very high when the following characteristics were present: no member of the family worked during the year, the family resided in a rural area and/or in the Atlantic Provinces, the head of the family was aged 65 and over, the head of the family was a woman, the head of the family was outside the labour force, the head of the family had no education beyond the elementary level. The sex and age of the head were the most important characteristics correlated with low incomes; approximately 43 per cent of all low-income families had female heads or male heads aged 55 and over. Some 53 per cent of all families with incomes below \$3,000 had heads with these characteristics.

7. INCOMES OF THE AGED

As has already been indicated, age and non-labour force participation are probably the most important characteristics associated with low income. Of the aged, the most acute income problems appeared to exist among the elderly population not in families, the widowed or not married. This was especially the case with women although those who never married appeared to be somewhat better off than widows, possibly because the former was the segment most likely to be working or to have worked. The majority of women aged 65 and over who were no longer married lived with relatives and the assistance of relatives was obviously the most important reason why the numbers of aged living alone on very low incomes was not substantially larger in 1961 than it was. This suggests that much concealed poverty existed among the elderly which was not evident in the statistics because the elderly were shown as part of a related family group. However, the statistical data suggest that, relatively, this was not as significant in 1961 as in 1951 and that improved economic conditions have led to a considerable undoubling of generations over the decade.

Married couples were rarely doubled-up with younger generations in 1961; in nearly all cases married couples managed to maintain their own home and their income position appeared to be generally more satisfactory than that of persons not in families. Where husbands were still present they usually had higher incomes than women, while in many families wives also qualified for pensions in their own right. Further, one third of families still had other relatives present such as unmarried children who were able to provide financial assistance.

Families whose heads worked or who had working members had higher levels of income than families with no working members. However, the proportion of elderly males working beyond the age of 65 has been declining in recent decades so that relatively fewer families in the older age groups have working heads than in earlier decades. Families with no one working were especially dependent upon old age pensions and other government payments for their main source of income. In 1961 the majority of the population aged 70 and over received over half their incomes from government pensions; this was as true for married couples as for persons not in families. However, government transfer payments accounted for less than half of the aggregate income receipts. The increasing dependence of the older population upon government assistance rather than earnings from employment was probably the major reason why older families shared less in real income growth during the 1950s than did younger families. Higher transfer payments possibly replaced earnings rather than supplemented them.

8. CHANGES IN THE INCOME DISTRIBUTION

Statistics on the income distribution of families are available only for 1951 and subsequent years; prior to 1961 these statistics were based upon sample data collected from household surveys. In the period prior to 1951, census statistics on wages and salaries collected from 1901 in conjunction with the decennial censuses were the only historical series available for the study of income trends in this century.

Because of the fluctuations of prices in the inter-war period and the steady rise in prices which started with the Second World War, comparisons of incomes in current dollars are not indicative of changes in real incomes intercensally and adjustments for price changes converting the statistics into constant dollars are necessary to measure real income change. Census data on earnings suggest that real earnings rose during the 1920s and in 1931, despite the depression, real earnings appeared to be higher than in 1921. These gains were probably wiped out in the next few years although the recovery associated with the war raised real wages and salaries in 1941 relative to 1931. However, little change occurred in earnings when expressed in current dollars; the rise in real incomes was attributable to lower prices in the 1930s than in the early 1920s.

A continuous rise in real incomes began in the 1940s and, with only minor pauses, appears to have persisted until 1961. The greatest changes in incomes over the decades appeared to have occurred between 1951 and 1961. The two decades

preceding 1961 were characterized by major changes in the structure of the labour force with a sharp decline in the proportion employed in primary occupations such as agriculture and forestry and a substantial rise in 'white collar' employment and employment in the service industries. This was accompanied by an increase in the educational attainment of the labour force and a very rapid urbanization of the population.

Between 1951 and 1961, average family income in current dollars rose by some 50 per cent; when converted to a constant dollar basis, the rise in real incomes was, on average, about one third. This rise in income levels was accompanied by visible improvements in the level of living – improvements in life expectancy, better housing accommodation, and better household facilities through large investments in consumer durables.

Although real-income growth was quite pervasive, not all types of families shared in it equally. Families who depended upon earned incomes and younger families experienced greater increases than did families in older age groups or families dependent upon investments, pensions and transfer payments. The youngest families were the greatest beneficiaries of the upward movement in real incomes.

9. INCOME INEQUALITY

Little data exist with respect to income inequality in the pre-war as contrasted with the postwar period. It can be hypothesized that trends in the economy before the war were such that they would result in an equalizing of incomes, although it is possible that if greater inequality existed in the pre-war period it may partially have been a reflection of a much higher rate of unemployment in the 1930s as compared with postwar years.

Between 1951 and 1961, little change occurred in the shares of money income received by each quintile of families. There has been a change in the composition of families in the bottom and top quintiles. For all family units, older families constituted a larger proportion of the lowest quintile in 1961 than in 1951 while a larger proportion of the incomes of the bottom quintile originated in transfer payments and a lower proportion in earned income. Thus, the non-working population dependent upon transfer payments was a more important segment of the lowest quintile in 1961. The greater relative increases in incomes of young families meant that the higher quintiles tended to consist of younger family units in 1961 than in 1951.

Between 1951 and 1961, transfer payments increased in importance as a source of income; in 1951, 5.2 per cent of family income came from transfer payments and by 1961 this proportion was 6.6 per cent. At the same time, personal income taxes also rose as a percentage of total money income. If the inequality of incomes is measured for disposable or after-tax income rather than gross income, direct income taxes appear to have only a modest effect on

reducing income inequality. In 1961 a larger proportion of income taxes was paid by middle income groups than in 1951. There appeared to be little change between 1951 and 1961 as to the income levels which marked family units who were net beneficiaries of cash redistribution from those who were not. In 1951, cash transfer-payments receipts exceeded direct income taxes paid for family units with incomes below \$4,000; in 1961 the point of redistribution appeared to be an income between \$4,000 and \$4,500.

INCOMES OF INDIVIDUALS

1. CHARACTERISTICS OF INCOME RECIPIENTS

In the year preceding the Census of June 1, 1961, of the 10,100,000 persons aged 15 and over in the non-farm population, 7,300,000 or 72 per cent reported receipts of money income and 2,800,000 persons or 28 per cent reported no income. That is, nearly three quarters of the adult population had incomes, one quarter did not. This chapter explores the characteristics of income recipients as against non-income recipients, the sources of income accruing to income recipients and some of the factors that appear to influence the amount of income received.

Table 3.1 presents the distribution of the population aged 15 and over, the income-receiving population and the non-income-receiving population, by sex and by age groups.

The 1961 Census of Canada was the first Canadian census to obtain statistics on the total income receipts of individuals and families. The income data were collected for a 20 per cent sample of non-farm households; all persons aged 15 and over resident in these households were asked to report on the amount and sources of income received for the year preceding the census. Income data were not secured for the farm population nor for the population resident in collective households and institutions. All census income statistics analyzed in this report are thus for the *non-farm population only*. A fuller explanation of the enumerator procedures and concepts may be found in Appendix A.

Although the total population aged 15 years and over was almost equally divided between males and females, the majority of income receivers were male and the majority of non-income recipients were females.

Although women were slightly more than one half of the population, they constituted only 37 per cent of the income-receiving group but 87 per cent of those who reported no income. The proportion of the male population not in receipt of an income was small. Only seven per cent of males reported no income and most of these were in the youngest age group that contains those 15 to 24 years of age, many of whom were still attending educational institutions. This was the only age group containing any significant proportion of non-income recipients among the male population. The percentage of persons with income, by sex and age, is shown in Table 3.3.

TABLE 3.1 — Percentage Distribution of Total Non-farm Population Aged 15 and Over, Income Recipients and Non-recipients, by Age and Sex, as at June 1, 1961

Age group	Total population			Income recipients			Non-recipients		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
15 — 24	21.2	21.1	21.3	18.3	16.1	22.1	28.9	83.4	20.5
25 — 34	21.2	21.4	21.0	20.5	22.9	16.6	23.0	3.8	26.0
35 — 44	20.2	20.2	20.3	19.9	21.6	17.1	20.9	2.2	23.8
45 — 54	15.7	16.0	15.4	16.2	17.0	14.9	14.2	2.8	15.9
55 — 64	10.4	10.4	10.4	10.6	10.9	10.2	9.8	4.8	10.6
65+,	11.2	10.9	11.6	14.3	11.5	19.0	3.2	3.0	3.2
Totals	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Non-farm population aged 15 and over No.	10,101,172	4,977,296	5,123,876	7,311,837	4,608,044	2,703,793	2,789,335	369,252	2,420,083

SOURCE: Calculated from Canada, Dominion Bureau of Statistics, 1961 Census of Canada, Vol. IV, Report 98-501. Table A5, *Incomes of Individuals*, hereinafter cited briefly as DBS, 1961 Census of Canada, Vol. IV, *Incomes of Individuals* (Cat. No. 98-501), Table A5.

TABLE 3.2 — Percentage Distribution of Population Aged 15 and Over, Income Recipients and Non-recipients, by Sex, Year Ended May 31, 1961

Item	Males	Females	Total
	p.c.	p.c.	p.c.
Population aged 15 and over	49.3	50.7	100.0
Income recipients	63.0	37.0	100.0
Non-recipients	13.2	86.8	100.0

SOURCE: DBS, 1961 Census of Canada, Vol. IV, *Incomes of Individuals* (Cat. No. 98-501), Table A5.

Somewhat over one half of women reported incomes, with the highest proportion of income receivers occurring among those aged 65 and over and the second highest proportion among those aged 15 to 24. The payment of old age pensions to all persons 70 and over would account for the high incidence of income recipients in the older age brackets. The majority of women aged 15 to 24 with incomes would be primarily single women entering the labour force after completion of their education and working prior to marriage.

TABLE 3.3 — Percentage of Population with Incomes, by Sex and Age, Year Ended May 31, 1961

Age group	Males	Females
	p.c.	p.c.
15 - 24	70.7	54.6
25 - 34	98.7	41.7
35 - 44	99.2	44.5
45 - 54	98.7	51.1
55 - 64	96.6	52.0
65+	98.0	86.8
Totals, age 15 and over	92.6	52.8

SOURCE: DBS, 1961 Census of Canada, Vol. IV, *Incomes of Individuals* (Cat. No. 98-501), Table A5.

Married women are classified as income recipients only if they received income from sources other than family allowance payments. These payments were for analytic purposes, added to the other income receipts of the husband where he was present in the family. At the time of the census somewhat over 2,500,000 families were in receipt of family allowances, one third of the payments were for amounts of less than \$100 and 80 per cent for amounts less than \$250 per annum. If family allowances had not been redistributed to the husband, the number of women income recipients would probably have been higher by at least 1,500,000 income recipients and the proportion of women with incomes possibly as high as

three quarters. It is likely that transferring family allowances from wives' to husbands' incomes affected the estimated number of male income recipients to only a very minor degree, if at all. The change in treatment seemed necessary to simplify the analysis of male-female income differentials.

The following sections explore in more detail the characteristics of income recipients, their sources of income and some of the factors that may affect the amount of income received.

INCOME DISTRIBUTION BY SEX

Not only was the proportion of women with incomes in 1961 lower among the adult population, but the incomes received by women were substantially lower. Although women constituted 37 per cent of income recipients they received only 20 per cent of total income. The relative income distribution by size of income is shown in Table 3.4.

As Chart 3.1 shows, both the male and female income distributions are not symmetrical or normal distributions. The male income distributions is bimodal with a peaking of incomes in the intervals under \$1,000 and between \$3,000 and \$4,000, while the female income distribution is a highly skewed one. Although the modal income group for women (that containing the greatest number) was \$500 to \$999, the proportion with incomes below \$500 was only slightly lower. For males the humping of incomes in the income groups under \$1,000 results from the concentration in this income bracket of males in the age groups 15 to 24 and 65 and over. The modal income group for the youngest males was under \$500 while for males aged 65 and over the greatest concentration occurred in the income group \$500 to \$999. Although among women the youngest and oldest age groups also formed a substantial part of the lowest income group, age itself does not account for the preponderance of low income among women. The relationship between age and income is discussed in a later section of this chapter.

The average incomes of female income recipients were somewhat over 40 per cent of the average reported by male recipients and median incomes were approximately one third. More than half of all women with incomes reported incomes of less than \$1,500 and only 10 per cent received more than \$3,500. In contrast, only 20 per cent of men had incomes of less than \$1,500 and half had incomes above \$3,500. One quarter of males had incomes above \$5,000 but only three per cent of women were in this income bracket.

SOURCES OF INCOME

Money income as reported in the 1961 Census originated primarily from three basic sources — income that was received from current or previous employment or from the operation of a business, income that was derived from the ownership of physical or financial assets such as land or buildings, bonds, corporate stocks and so forth and, finally, income received from government social security

TABLE 3.4 — Distribution of Income Recipients, by Size of Income and by Sex, Year Ended May 31, 1961

Income group	Males		Females		Total	
	No.	p.c.	No.	p.c.	No.	p.c.
Under \$500	266,038	5.8	611,495	22.6	877,533	12.0
\$ 500 — \$ 999	392,170	8.5	642,350	23.8	1,034,520	14.1
1,000 — 1,499	276,685	6.0	312,909	11.6	589,594	8.1
1,500 — 1,999	255,441	5.5	251,834	9.3	507,275	6.9
2,000 — 2,499	309,174	6.7	257,081	9.5	566,255	7.7
2,500 — 2,999	319,115	6.9	185,444	6.9	504,559	6.9
3,000 — 3,499	445,275	9.7	170,684	6.3	615,959	8.4
3,500 — 3,999	412,032	8.9	95,185	3.5	507,217	6.9
4,000 — 4,499	431,437	9.4	59,360	2.2	490,797	6.7
4,500 — 4,999	319,172	6.9	31,992	1.2	351,164	4.8
5,000 — 5,999	479,902	10.4	36,794	1.4	516,696	7.1
6,000 — 9,999	521,468	11.3	36,465	1.3	557,933	7.6
10,000 and over	180,135	3.9	12,200	0.5	192,335	2.6
Totals	4,608,044	100.0	2,703,793	100.0	7,311,837	100.0
Average income . . . \$	3,999		1,651		3,131	
Median income . . . \$	3,551		1,155		2,586	

SOURCE: DBS, 1961 Census of Canada, Vol. IV, *Incomes of Individuals* (Cat. No. 98-501), Table A1.

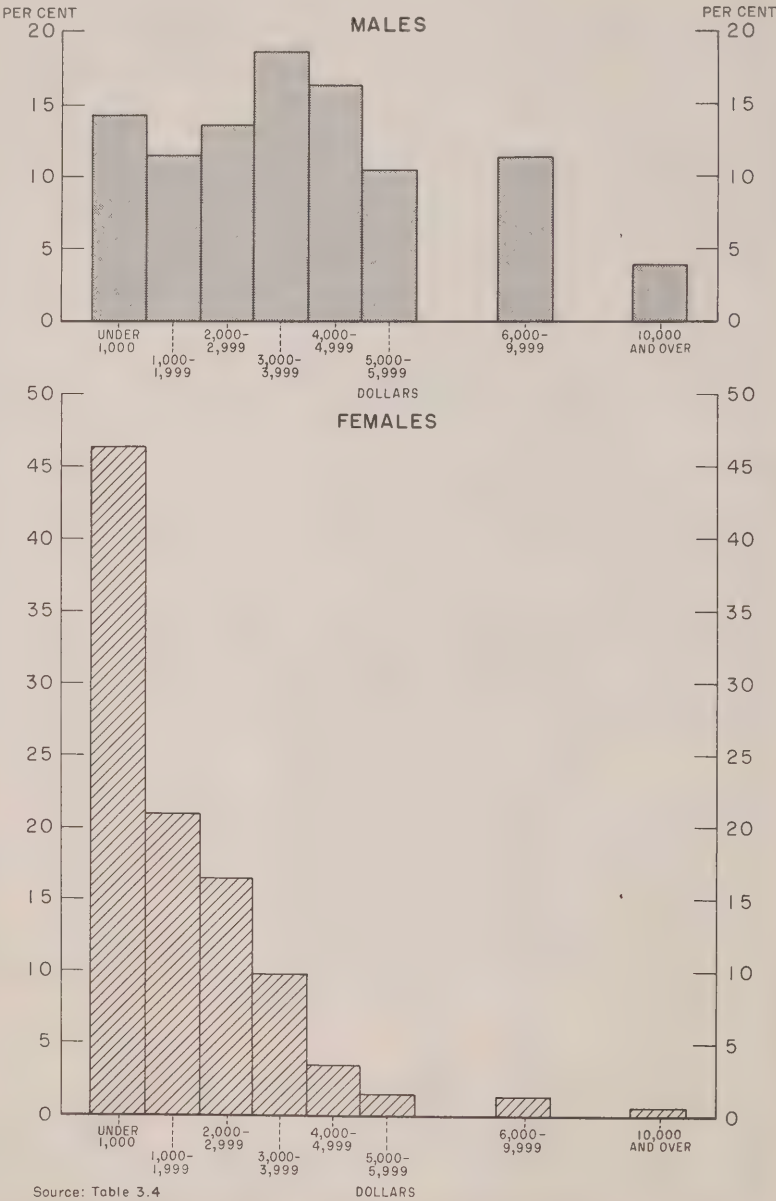
TABLE 3.5 — Distribution of Aggregate Income by Income Group and by Sex of Income Recipient, Year Ended May 31, 1961

Income group	Males		Females		Total	
	\$'000,000	p.c.	\$'000,000	p.c.	\$'000,000	p.c.
Under \$500	58	0.3	121	2.8	179	0.8
\$ 500 — \$ 999	283	1.5	454	10.3	737	3.2
1,000 — 1,499	336	1.8	376	8.5	712	3.1
1,500 — 1,999	440	2.4	429	9.7	869	3.8
2,000 — 2,499	687	3.7	566	12.8	1,253	5.5
2,500 — 2,999	867	4.7	498	11.3	1,365	6.0
3,000 — 3,499	1,432	7.8	543	12.3	1,975	8.7
3,500 — 3,999	1,532	8.3	350	7.9	1,882	8.3
4,000 — 4,499	1,816	9.9	247	5.6	2,063	9.0
4,500 — 4,999	1,506	8.2	150	3.4	1,656	7.3
5,000 — 5,999	2,580	14.0	197	4.5	2,777	12.2
6,000 — 9,999	3,783	20.6	263	6.0	4,046	17.7
10,000 and over	3,072	16.7	216	4.8	3,288	14.4
Totals	18,392	100.0	4,410	100.0	22,802	100.0

SOURCE: DBS, 1961 Census of Canada, *Incomes of Individuals* (Cat. No. 98-525) Bull. SX-11.

CHART 3.1

PERCENTAGE DISTRIBUTION OF INCOME RECIPIENTS BY SIZE OF INCOME
BY AGE AND BY SEX, YEAR ENDED MAY 31, 1961



or welfare plans such as old age and veterans' pensions, unemployment insurance or family allowance payments.

Employment was the most significant source of income for the population, both male and female, although it was somewhat more important for the male population. In total, 88 per cent of all income reported was income associated with employment as a paid worker or from the operation of a business or a professional practice, slightly over six per cent consisted of government transfer payments, and somewhat under five per cent was income derived from the ownership of assets or investment. The remainder, just under one per cent, consisted of miscellaneous income sources. Table 3.6 summarizes the amount and sources of income for each sex and in total.

**TABLE 3.6 — Sources of Income, by Sex of Income Recipient,
Year Ended May 31, 1961**

Source	Total receipts \$'000,000			Per cent of total receipts		
	Males	Females	Total	Males	Females	Total
Income from employment —						
Wages and salaries	13,984	3,182	17,166	76.1	72.2	75.3
Military pay	312	2	314	1.7	--	1.4
Net income from business or practice	2,172	221	2,393	11.8	5.0	10.5
Retirement pensions	206	54	260	1.1	1.2	1.1
Investment income —						
Bond and bank interest and dividends.	301	209	510	1.6	4.7	2.2
Other investment income . . .	356	215	571	1.9	4.9	2.5
Government transfer payments —						
Family allowances	417	21	438	2.3	0.5	1.9
Old age pensions	234	265	499	1.3	6.0	2.2
Other government payments	329	169	498	1.8	3.8	2.2
Miscellaneous income.	79	72	151	0.4	1.6	0.7
Totals	18,390	4,410	22,800	100.0	100.0	100.0

SOURCE: DBS, 1961 Census of Canada, *Incomes of Individuals* (Cat. No. 98-525) Bull. SX-11. Table 2.

Of the income associated with employment, 75.3 per cent came from wages and salaries, 1.4 per cent from military pay, 10.5 per cent from a business or professional practice and 1.1 per cent from retirement pensions received by persons as a result of previous employment.

Second in relative importance after income from employment were government transfer payments of various types. The most important components of government payments were family allowances, old age assistance and old age

pension payments; these represented approximately two thirds of all government payments reported. The remaining government payments consisted of veterans' pensions, veterans' allowances, pensions to widows and dependants of veterans, unemployment insurance benefits, workmen's compensation, cash relief payments, mothers' allowances, and pensions to the blind and disabled. Several of these schemes, such as mothers' allowances, were payable only to women but the majority, such as veterans' pensions, went largely or entirely to the male population. Of the transfer payments other than family allowances, 56 per cent were paid to males. As mentioned, family allowance receipts are, for analytical purposes, allocated to the male parent.

Income from investments was less important in the income distribution than either earned income or government transfer payments. Not only was investment income a smaller proportion of total income, it was also less likely to be the main income component for income recipients. For the male population especially, investment income was usually a secondary source of income. Approximately one fifth of male income recipients reported receipts of investment income but only two per cent reported investment income as their major source of income, while some eight per cent of male income recipients reported government transfer payments as their major income source. Investment income was a more important element in the incomes of women, approximately 11 per cent of whom reported investment income as their major source of income. This was still much lower than the proportion for whom transfer payments were the main income component, approximately 19 per cent.

CHART 3.2

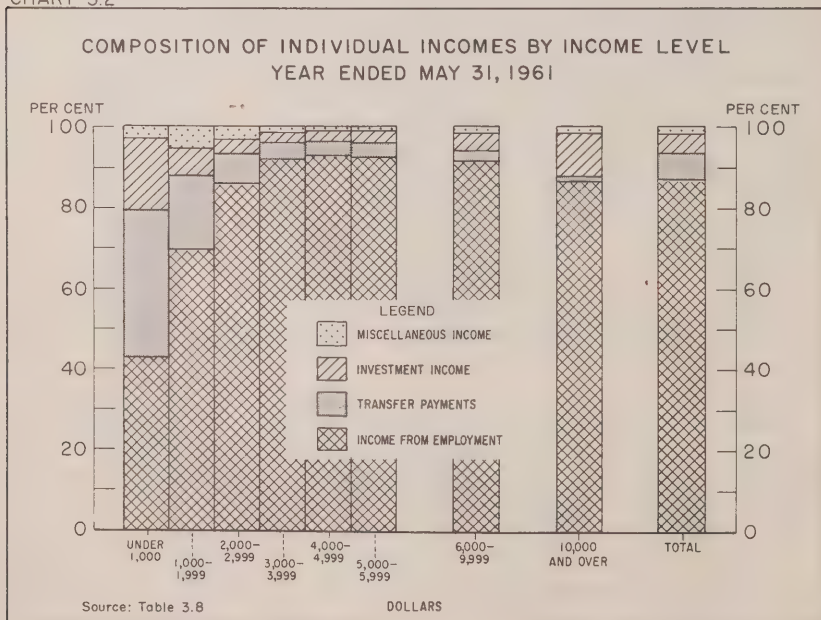


TABLE 3.7 — Sources of Income by Sex of Income Recipient and by Income Level,
Year Ended May 31, 1961

Source	Income group							
	Males							
	Under \$1,000	\$1,000- 1,999	\$2,000- 2,999	\$3,000- 3,999	\$4,000- 4,999	\$5,000- 5,999	\$6,000- 9,999	\$10,000+ Total
Income recipients No.	658,208	532,126	628,289	857,307	750,609	479,902	521,468	180,135
Income from employment	58.7	77.4	93.3	98.0	99.0	99.1	98.9	97.6
av. reported	406	1,248	2,244	3,254	4,185	5,075	6,792	15,528
Wages and salaries	54.6	69.5	84.3	91.1	93.3	92.5	89.1	74.6
av. reported	409	1,236	2,224	2,948	4,161	5,026	6,601	13,201
Net income from business or practice	5.1	10.3	11.5	9.0	8.3	10.3	16.3	39.9
av. reported	297	1,036	1,903	2,663	3,164	3,694	5,123	13,132
Retirement pensions	2.5	10.2	5.2	2.5	1.9	1.9	2.6	2.9
av. reported	351	783	1,274	1,453	1,482	1,708	2,162	4,127
Investment income	11.6	16.7	13.6	12.9	16.4	21.4	32.0	50.4
av. reported	168	433	523	451	450	546	786	2,991
Bond and bank interest	10.0	12.8	10.5	9.8	9.3	16.0	24.9	42.2
av. reported	122	245	268	227	228	272	390	1,950
Other investment income	2.4	6.6	5.3	4.5	5.7	7.8	12.2	21.1
av. reported	306	622	811	794	801	933	1,269	3,215
Government transfer payments	49.0	56.2	54.6	58.3	66.9	71.3	71.7	67.7
av. reported	508	581	421	287	251	257	272	329
Family allowances	14.2	25.3	40.6	51.6	62.7	68.0	68.0	63.2
av. reported	184	200	188	185	188	195	192	195
Old age pensions	25.9	17.8	6.4	2.6	1.5	1.4	1.9	3.4
av. reported	658	649	636	628	620	624	618	635
Other government payments	13.1	25.8	18.4	10.5	7.8	6.8	6.2	4.9
av. reported	403	623	617	533	520	616	842	1,258
Miscellaneous income	1.6	2.7	1.8	1.3	1.4	1.7	2.6	5.3
av. reported	233	518	675	651	674	773	1,226	2,569

TABLE 3.7 — Sources of Income by Sex of Income Recipient and by Income Level,
Year Ended May 31, 1961 — concluded

Source	Income group							
	Under \$1,000	\$1,000- 1,999	\$2,000- 2,999	\$3,000- 3,999	\$4,000- 4,999	\$5,000- 5,999	\$6,000- 9,999	\$10,000+ Total
Females								
Income recipients.	No. 1,253,845	564,743	442,525	265,869	91,352	36,794	12,200	2,703,793
Income from employment. . . p.c. reporting av. reported	47.2 398	77.6 1,350	91.7 2,318	94.8 3,246	93.1 4,071	89.4 4,883	83.9 6,358	68.2 1,862
Wages and salaries.	44.1	73.3	88.3	91.5	88.8	83.0	74.8	64.6
Net income from business or practice. . . av. reported	397	1,351	2,316	3,237	4,030	4,775	5,959	1,823
	3.5	5.1	4.3	4.5	7.1	11.2	18.4	4.6
Retirement pensions	355	1,110	1,890	2,551	3,026	3,598	4,761	1,764
	1.2	3.9	2.6	2.4	3.5	4.7	4.7	2.3
Investment income	409	740	1,043	1,154	1,320	1,761	1,921	863
	24.4	20.2	17.5	22.7	36.9	46.4	58.2	23.6
Bond and bank interest and dividends	193	586	727	740	971	1,479	2,457	672
	20.5	15.0	14.3	19.3	31.3	38.6	48.6	19.4
Other investment income av. reported	130	335	416	403	558	862	1,446	398
	5.7	9.3	6.3	6.9	12.5	18.2	26.1	7.5
Government transfer payments	354	737	1,088	1,304	1,465	1,942	2,785	1,061
	37.9	27.3	13.2	12.1	12.8	15.0	16.7	27.4
Family allowances	558	739	719	541	654	726	828	640
	4.0	5.8	5.3	5.0	5.5	5.6	5.5	4.8
Old age pensions	157	172	179	154	156	155	156	165
	24.7	11.9	4.5	2.8	4.1	5.6	7.4	15.3
Other government payments	639	650	642	640	639	633	646	642
	10.9	15.4	5.9	3.4	4.5	5.3	4.4	9.9
Miscellaneous income	432	744	953	875	1,080	1,202	1,552	630
	2.6	4.3	2.9	3.1	5.5	6.8	10.5	3.4
	286	659	904	1,064	1,177	1,504	2,028	788

	No.	Males and females								
		1,912,053	1,096,869	1,070,814	1,123,176	841,961	516,696	557,933	192,335	7,311,837
Income recipients										
Income from employment	p.c. reporting	51.2	77.5	92.6	97.3	98.4	98.4	97.9	95.6	81.8
	av. reported	401	1,300	2,274	3,252	4,173	5,062	6,768	15,651	3,331
Wages and salaries.	p.c. reporting	47.7	71.5	85.9	91.2	92.8	91.8	88.2	73.1	75.6
	av. reported	402	1,296	2,263	3,237	4,148	5,010	6,565	13,163	3,161
Net income from business or practice.	p.c. reporting	4.1	7.6	8.5	8.0	8.2	10.4	16.5	39.2	8.6
	av. reported	330	1,062	1,900	2,648	3,151	3,686	5,096	13,045	3,781
Retirement pensions	p.c. reporting	1.7	6.9	4.1	2.5	2.0	2.1	2.7	2.9	3.1
	av. reported	379	771	1,213	1,386	1,452	1,717	2,135	4,010	1,143
Investment income	p.c. reporting	20.0	18.5	15.2	15.2	18.6	23.1	33.7	51.3	20.3
	av. reported	188	519	620	553	563	679	975	3,677	735
Bond and bank interest and dividends	p.c. reporting	16.9	13.9	12.0	12.1	14.4	17.6	26.5	42.9	16.2
	av. reported	128	295	340	294	306	364	517	2,352	432
Other investment income	p.c. reporting	4.6	8.0	5.7	5.0	6.4	8.6	13.1	22.2	6.9
	av. reported	345	691	937	958	942	1,086	1,467	3,824	1,127
Government transfer payments	p.c. reporting	41.7	41.3	37.5	46.9	61.0	67.3	68.1	64.9	48.5
	av. reported	538	635	465	300	261	264	281	489	410
Family allowances	p.c. reporting	7.5	15.3	26.0	40.6	56.5	63.5	63.9	59.5	31.8
	av. reported	174	194	187	184	188	195	192	195	189
Old age pensions	p.c. reporting	25.1	14.7	5.6	2.6	1.8	1.7	2.3	4.0	10.6
	av. reported	646	649	638	631	624	626	624	638	645
Other government payments	p.c. reporting	11.7	20.4	13.2	8.8	7.5	6.7	6.2	4.8	11.3
	av. reported	421	670	679	564	557	650	882	1,432	600
Miscellaneous income.	p.c. reporting	2.2	3.5	2.2	1.7	1.8	2.1	3.1	5.8	2.4
	av. reported	274	607	798	826	839	944	1,402	2,955	840

SOURCE: DBS, 1961 Census of Canada, *Incomes of Individuals* (Cat. No. 98-525) Bull. No. SX-11.

TABLE 3.8 — Percentage Distribution of Income, by Sex of Income Recipient and by Income Level, Year Ended May 31, 1961

Sex and source	Income group									
	Under \$1,000	\$1,000-1,999	\$2,000-2,999	\$3,000-3,999	\$4,000-4,999	\$5,000-5,999	\$6,000-9,999	\$10,000+	Total	
Males	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Income from employment —										
Wages and salaries	43.0	58.9	75.8	85.2	87.7	86.5	81.1	57.8	77.7	
Net income from business or practice	2.9	7.3	8.8	7.0	6.0	7.1	11.5	30.7	11.8	
Retirement pensions	1.7	5.4	2.7	1.0	0.6	0.6	0.8	0.7	1.1	
Investment income—										
Bond and bank interest and dividends	2.3	2.1	1.1	0.6	0.6	0.8	1.3	4.8	1.6	
Other investment income	1.4	2.8	1.7	1.0	1.0	1.4	2.1	4.0	1.9	
Government transfer payments—										
Family allowances	5.0	3.5	3.1	2.8	2.7	2.5	1.8	0.7	2.3	
Old age pensions	32.8	7.9	1.6	0.5	0.2	0.2	0.2	0.1	1.3	
Other government payments	10.1	11.0	4.6	1.6	0.9	0.8	0.7	0.4	1.8	
Miscellaneous income	0.7	1.0	0.5	0.2	0.2	0.2	0.4	0.8	0.4	
Totals, Income	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Females										
Income from employment—										
Wages and salaries	38.2	69.5	85.0	88.2	82.4	74.1	61.8	35.2	71.7	
Net income from business or practice	2.7	4.0	3.4	3.4	4.9	7.6	12.2	18.6	5.2	
Retirement pensions	1.0	2.0	1.2	0.8	1.1	1.6	1.2	0.6	1.2	

Investments are usually acquired through savings out of past income or through inheritances and bequests. For the majority of persons with investment income it is probable that the most common means of acquisition has been savings out of current incomes. No data exist on the sources of savings in Canada but a recent study for the United States indicates that income recipients with incomes above \$10,000 accumulated three quarters of their assets by savings out of income and only one quarter through inheritances or bequests.¹ It is unlikely that Canadian patterns of asset acquisition are any different. As Table 3.7 indicates, most investors report relatively modest receipts of investment income. Few income recipients had substantial amounts of income from investments and few of the income recipients in the higher income brackets had incomes originating largely from investments. Of the 192,000 persons with incomes above \$10,000, only 12,000 derived their income mainly from investments although the majority of this income group had investment income.² However, among higher income groups a larger proportion reported receipts of investments; one third of all investment income accrued to persons with incomes of \$10,000 or more. The statistics published annually relating to taxpayers in Canada indicate that even in the highest income brackets wealthy investors are a minority. Income derived from the operation of a business or a professional practice or a high salary in managerial occupations are the more common sources of high income.

It is often stated that women control most of the personal wealth of our society.³ As Table 3.5 on income receipts indicates, male income recipients received a greater share of investment income than did women, but this is attributable to the fact that the men formed the greater proportion of all income recipients. A somewhat higher percentage of women than of men reported receipts of investment income while average receipts per income recipient were very similar. For lower income levels, the proportion of persons reporting investment income receipts was similar for both men and women but for income above \$4,000 the percentage of women with investment income was substantially higher and their average receipts were higher than for men. High incomes for women are much more likely to be associated with the ownership of assets than is the case with men.

Since male income recipients are usually in higher income brackets their ability to save out of income may be greater and savings out of current income may be a more important explanation for investment income receipts for men than

¹See the study by Robin Barlow, Harvey S. Brazer and James N. Morgan, *Economic Behavior of the Affluent* (Washington: The Brookings Institute, 1966), Chapter VII.

²See Table 3.9.

³Statistics are often cited in support of the statement that women control most of the wealth in Canada and the United States. It is impossible to trace the origin of the figures often quoted, as few studies exist in either country on the distribution of asset holdings by sex. For the United States, Robert Lampman's study *The Share of Top Wealth Holders in National Wealth, 1922-56*, National Bureau of Economic Research (Princeton: Princeton University Press, 1962), shows that over half of the wealth was held by males. In Canada, over half of the investment income reported on tax returns is reported by male tax filers.

for women. Women may be more likely to own investments as a result of inheritances than men because women, with a longer life expectancy, are usually the surviving partners when marriage is broken by death. Of the women who reported investment income as their main source of income, approximately one half were 55 years of age or older; widows constituted a large part of this age group. It is also possible that during their lifetime many husbands gave their wives title to family assets or that, with the growing incidence of employment among married women, earnings of working wives were used for savings rather than for current consumption. These may be among the reasons why, despite lower income levels, the proportion of women with investment income in 1961 was as high as that of men.

INCOME BY MAJOR SOURCE

In summary, nearly 90 per cent of male income recipients derived most of their income from employment either as wage or salary earners or in self-employment. Somewhat under 10 per cent had government payments as their main source of income. A very small fraction (two per cent) were dependent upon investment income and a similar fraction reported other sources such as private pensions as their main source.

Women income recipients had more heterogeneous income patterns. Only two thirds reported income from employment as their main source of income; 20 per cent were dependent upon government transfer payments, while 11 per cent had incomes primarily from investments and three per cent from miscellaneous sources.

An examination of the income distribution by major source of income indicates, as might be expected from the composition of incomes, that income recipients whose incomes originate largely from employment received the highest levels of income, while the small group dependent upon investments and pensions ranked next, with the population dependent upon government payments of various types falling in the least favourable position. The individuals dependent upon transfer payments would consist of old age pensioners, women in receipt of mothers' allowances, blind and disabled pensioners, unemployment assistance recipients and others in similar categories. Among the employed, those whose income was derived from their own business or professional practice averaged higher incomes than those whose income was primarily from wages and salaries, although the difference was not as great among women as among men. These differentials will be discussed more thoroughly in Chapter Four.

The quartile distribution by major source of income is summarized in Table 3.10.

Quartile points are those points on the income scale which include one quarter of the income-receiving population — for example, 25 per cent of males with major source of income wages and salaries reported less than \$2,569, 25 per cent between \$2,569 and \$3,840, and so forth.

TABLE 3.9 — Percentage Distribution of Incomes, by Sex of Income Recipient and by Major Source of Income, Year Ended May 31, 1961

Income group	Males				Females			
	Wages and salaries	Net income	Transfer payments	Other income ^a	Wages and salaries	Net income	Transfer payments	Other income ^a
Under \$500	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
\$ 500 — \$ 999	4.9	2.8	13.4	11.8	18.6	23.4	15.7	49.8
1,000 — 1,499	4.2	3.9	53.2	7.8	12.8	15.7	66.2	14.3
1,500 — 1,999	4.5	5.3	17.6	11.8	12.0	13.0	11.8	9.0
2,000 — 2,499	4.7	5.7	8.1	16.8	11.5	10.5	3.5	7.8
2,500 — 2,999	6.6	7.7	3.8	12.0	13.0	9.5	1.7	5.2
3,000 — 3,499	7.3	8.1	1.9	8.3	9.7	6.2	0.6	3.4
3,500 — 3,999	10.8	9.5	1.0	6.1	9.2	5.7	0.2	2.4
4,000 — 4,499	10.3	7.4	0.6	4.2	5.1	3.5	0.1	1.6
4,500 — 4,999	10.9	7.6	0.3	3.0	3.1	2.7	0.1	1.2
5,000 — 5,999	8.1	4.7	0.2	2.2	1.6	1.5	—	0.9
6,000 — 9,999	12.0	9.1	—	4.1	1.7	2.5	—	1.3
10,000 and over	12.4	15.1	—	6.5	1.5	3.7	—	2.0
	3.3	13.2	—	5.3	0.3	2.1	—	1.3
Totals	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Average income \$	4,178	5,733	991	3,435	1,960	2,245	771	1,378
Median income \$	3,840	3,972	843	2,075	1,786	1,418	758	506
Recipients No.	3,649,107	373,826	396,420	188,691	1,687,877	97,462	537,387	381,067

^aOther income includes those income recipients whose major source of income was from investments, retirement pensions or miscellaneous sources.

SOURCE: Unpublished tables from 1961 Census of Canada. An abridged table was published in DBS, 1961 Census of Canada, Vol. IV, *Incomes of Individuals* (Cat. No. 98-501), Table A8.

**TABLE 3.10 — Quartile Limits by Sex and Major Source of Income,
Year Ended May 31, 1961**

Major source and quartile	Quartile limit	
	Males	Females
	\$	\$
Wages and salaries —		
First quartile	2,569	750
Second quartile	3,840	1,786
Third quartile	5,225	2,866
Net income —		
First quartile	2,475	551
Second quartile	3,972	1,418
Third quartile	6,848	2,734
Transfer payments —		
First quartile	609	570
Second quartile	843	771
Third quartile	1,239	948
Other income —		
First quartile	1,229	251
Second quartile	2,075	506
Third quartile	3,548	1,622

SOURCE: Calculated from Table 3.9.

2. CHARACTERISTICS OF INCOME RECIPIENTS WITHIN INCOME GROUPS

EMPLOYMENT AND RECEIPT OF INCOME

In the youngest age group, those under 25, a substantial proportion of both sexes — approximately 30 per cent of the men and 45 per cent of the women—were not income recipients. In the case of men, the probable explanation for no income being reported is that formal education had not been completed and that many males in this age group were still attending school.⁴ Between the ages of 25 and 55 approximately 99 per cent of men were income recipients and almost as high a percentage were in the labour force during the year. Even between the ages of 55 and 65 nearly 90 per cent of the males were in the labour force.⁵ Almost the entire male population, embracing those beginning work upon completion of their formal education and those between the ages of 25 and 55, and in the labour force; withdrawal from the labour force appeared to start after the age of 55, but even

⁴In 1961, approximately 63 per cent of males aged 15 to 19 and 12 per cent of males aged 20 to 24 in the non-farm population were still attending school.

⁵Of the total male non-farm population, aged 25 to 54, inclusive, numbering 2,866,133 persons, 2,833,535 were income recipients and of those 2,768,952 had labour force experience in the year preceding the Census.

then the proportion not working between the ages of 55 and 65 was not substantial. Since very few males work only for payment in kind, this meant that most males at least earn cash income from employment.

The work patterns of women show different trends. Completion of an education was also an important reason why many women between the ages of 15 and 24 were not income recipients, although fewer girls than boys in this age group were attending school — approximately 33 per cent in contrast to 38 per cent of boys. Upon completing school, women also appeared to enter the labour force but labour force participation was correlated with marital status. The majority of single women worked after the completion of their education but labour force participation dropped sharply after marriage. The trend in the postwar years has been toward earlier marriages and after the age of 30 most women married. Although somewhat over one quarter of married women between the ages of 15 and 24 worked, these were probably working only until the arrival of children, as the statistics showed that a withdrawal from the labour force occurred with the birth of children. As children reached school age, participation rose again among married women, with a higher proportion of those aged 35 to 54 working than those aged 25 to 34.

For the age group 15 to 64 inclusive, 56 per cent of single women, 23 per cent of married women and 46 per cent of those who were widowed and divorced were in the labour force. These statistics indicate that a substantial proportion of women remained outside the labour force regardless of marital status although the single, widowed and divorced appeared to have greater incentives to work. The over-all participation rate for women between 25 and 64 years was only 33 per cent and this would be the main explanation for the lower incidence of incomes among the female population. However, because two thirds of women in these age groups were married, married women in total formed slightly over half of the female labour force, while single women were 42 per cent and widowed and divorced women only seven per cent.

It is likely that married women will constitute a growing proportion of the female labour force as the labour force participation rate of married women has been rising steadily since 1951. Census data for 1951 indicate that the number of single women in the labour force was some three per cent lower than in 1961 while the number of widowed and divorced women in the labour force was approximately two thirds of the 1961 total. In contrast, in 1951 the number of married women working was only 40 per cent of the number at work in 1961 and married women constituted only 30 per cent of the 1951 female labour force. To an increasing extent the working women were secondary contributors to family income rather than self-supporting workers. The effect of wives' earnings on family income is discussed further in Chapter Six.

Information is available from the 1961 Census on labour force participation over the 12-month period preceding the census as well as at the Census date. Not only were participation rates much lower among women, but women workers

stayed in the labour force for the full year far less frequently. Among men in the age groups 25 to 54, only two and a half to three per cent of males with incomes were reported as working during the year but not in the labour force at the time of the census. Among women, the percentage reporting labour force attachment during the year but no labour force attachment at census time was much higher. Approximately 14 per cent of those under 25 years of age and not working on June 1 indicated that they worked during the year, while for those aged 45 to 54 the proportion was seven per cent.

This analysis of working patterns is based entirely on the employment data collected on the Census. An examination of the consistency between employment status and income sources suggests that, for women, the census may have under-reported labour force participation over the year preceding the census and that female movement in and out of the labour force over this time period was greater than the statistics indicate. It is possible that many women may have omitted reporting short-run employment. Discrepancies are evident in the data contained in Tables 3.7, 3.8, 3.9 and 3.11. The number of women with income from employment should, theoretically, not exceed the number reported as having been in the labour force. In fact, approximately 69 per cent of women reported income from employment and 66 per cent of women income recipients were classified as having employment income as their major source of income while only 63 per cent reported labour force participation. By income groups, the greatest absolute difference in numbers reporting employment income as compared to labour force participation was in the lowest group incomes of less than \$1,000 and three quarters of the absolute difference was in incomes under \$2,000. This suggests that there may have been under-reporting of part-year employment. Another possible explanation for differences between employment status and income sources is a difference in the time period — income may have been reported for the calendar year 1960 while employment was reported for the 12-month period ended June 1, 1961, so that earnings could refer to a period preceding the census referral period.

Data collected through other sources such as the Surveys of Consumer Finances as well as through the census indicate that the female labour force had a much more erratic and irregular employment behaviour than the male labour force. A substantial proportion of the female labour force had only a part-year or part-time attachment to the labour force and such patterns were a result of personal reference rather than unemployment problems. For example, in the 1962 Survey of Consumer Finances only 50 per cent of wives with work experience indicated that they were in the labour force for 50 to 52 weeks in 1961. The principal explanation given for not working a full year was staying home and keeping house.⁶

⁶See the discussion on "Work Experience in 1961", *Distribution of Non-Farm Incomes in Canada by Size, 1961*, DBS (Cat. No. 13-521), pp. 37-46.

TABLE 3.11 — Characteristics of Income Recipients, by Sex within Income Groups,
Year Ended June 1, 1961

Item	Males										Total
	Under \$1,000	\$1,000- 1,999	\$2,000- 2,999	\$3,000- 3,999	\$4,000- 4,999	\$5,000- 5,999	\$6,000- 9,999	\$10,000+	p.c.		
Totals	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Marital status —											
Single	50.6	35.6	27.1	17.5	9.8	6.5	4.7	4.0	21.2		
Married	40.6	58.0	69.9	80.5	88.7	92.2	93.9	94.2	75.4		
Widowed or divorced	8.8	6.4	3.0	2.1	1.5	1.3	1.4	1.8	3.4		
Age group —											
15 — 24	40.0	26.6	22.4	13.8	6.9	3.5	1.7	1.1	16.1		
25 — 34	8.1	14.9	22.4	28.1	31.7	30.7	24.8	13.7	22.9		
35 — 44	6.5	11.0	16.5	22.4	27.9	32.0	34.3	32.3	21.6		
45 — 54	7.2	11.1	15.5	18.3	19.6	20.7	23.8	29.3	17.0		
55 — 64	8.1	11.4	11.7	11.8	10.3	9.9	11.3	16.2	10.9		
65 — 69	6.9	7.6	4.9	3.0	2.1	1.8	2.2	3.8			
70+	23.2	17.4	6.5	2.7	1.6	1.5	2.0	3.6			
Relationship to head of household —											
Head	43.0	58.6	67.7	78.5	87.4	91.8	94.9	96.4	75.0		
Unmarried children	39.3	23.3	16.2	8.7	4.7	2.8	1.9	1.6	13.5		
Married children	1.1	1.5	1.5	1.2	0.9	0.6	0.4	0.3	1.0		
Parents	4.1	2.4	0.8	0.5	0.3	0.2	0.2	0.2	1.1		
Other relatives	5.1	5.1	4.7	3.4	2.3	1.4	0.8	0.6	3.2		
Other	7.5	9.3	9.0	7.8	4.5	3.2	1.8	0.9	6.1		
Labour force participants —											
In current labour force	42.6	65.7	86.5	94.6	96.9	97.2	96.8	95.0	83.6		
Non-current labour force	11.3	7.8	4.7	2.4	1.4	1.1	1.0	1.4	4.1		
Not in labour force	46.1	26.5	8.8	3.1	1.7	1.7	2.2	3.6	12.3		
Major source of income —											
Wages and salaries	50.5	63.0	80.9	89.7	92.3	91.3	86.8	67.1	79.2		
Net income from self-employment	3.8	7.7	9.4	7.3	6.1	7.1	10.8	27.4	8.1		
Transfer payments	40.1	19.2	3.6	0.7	0.3	—	—	—	8.6		

Totals	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Marital status —									
Single	20.4	28.9	36.9	39.1	39.1	36.8	35.8	20.8	27.8
Married	60.4	51.4	50.6	49.0	45.7	44.2	43.0	50.3	54.8
Widowed or divorced	19.2	19.8	12.6	11.8	15.2	19.0	21.2	28.9	17.5
Age group —									
15 — 24	20.3	25.4	30.1	20.1	8.6	5.6	4.4	5.0	22.1
25 — 34	13.1	15.6	20.3	27.2	24.1	19.5	13.6	11.7	16.6
35 — 44	14.4	17.3	19.1	22.0	24.9	21.8	21.8	19.2	17.1
45 — 54	12.7	15.3	15.3	17.2	23.0	25.8	28.5	21.6	14.9
55 — 64	10.5	10.4	8.3	8.6	12.4	16.3	18.8	20.3	10.2
65 — 69	7.3	4.4	2.3	2.0	2.7	4.0	5.2	8.3	—
70+	21.7	11.7	4.5	2.9	4.2	5.6	7.5	13.9	—
Relationship to head of household —									
Head	14.9	21.2	18.6	22.4	29.8	36.0	39.3	40.1	18.8
Wife	53.1	42.4	41.6	41.3	39.3	39.0	38.1	45.5	46.9
Unmarried children	13.7	16.2	20.6	17.6	15.3	12.3	10.9	6.0	15.7
Married children	1.5	1.8	2.2	2.3	1.8	1.7	1.4	0.9	1.7
Parents	6.2	2.8	1.2	0.6	0.7	0.8	0.8	1.1	3.8
Other relatives	4.1	5.1	5.4	5.1	5.1	3.8	4.0	2.8	4.7
Other	6.6	10.4	10.3	10.7	8.0	6.4	5.5	3.6	8.4
Labour force participants —									
In current labour force	28.3	64.0	83.6	87.3	82.0	74.8	65.7	40.2	53.6
Non-current labour force	11.6	8.6	4.7	3.3	2.5	2.1	2.4	2.5	8.4
Not in labour force	60.1	27.4	11.6	9.4	15.5	23.1	31.9	57.3	38.0
Major source of income —									
Wages and salaries	42.4	70.0	86.4	90.2	86.6	79.8	69.1	42.1	62.4
Net income from self-employment	3.0	4.0	3.5	3.4	4.5	6.6	10.0	17.1	3.6
Transfer payments	35.1	14.6	2.7	0.7	0.5	—	—	—	19.9
Investment income	16.9	7.5	5.0	4.2	6.5	11.1	17.7	36.9	11.4
Other	2.6	3.8	2.4	1.5	2.0	2.5	3.2	3.9	2.7

SOURCE: DBS, 1961 Census of Canada, Vol. IV, *Incomes of Individuals* (Cat. No. 98-501), Tables A5, A6 and A7, and *Incomes of Individuals* (Cat. No. 98-502), Tables B8 and B9. Distribution by major source based on unpublished data.

Such differences in working behaviour have affected the relative income distribution of each sex; the effect on earnings is explored further in Chapter Four.

CHARACTERISTICS BY MARITAL STATUS AND FAMILY RELATIONSHIP

The lower income groups consisted predominantly of women who constituted the majority in the income groups below \$1,500 and who accounted for 63 per cent of all income recipients in these lowest brackets. At the upper end of the distribution, incomes of \$10,000 or more, women were only six per cent of all income recipients.

Table 3.11 summarizes selected characteristics of income recipients within income levels. The greater majority of male income recipients were married, with only six per cent having single or widowed marital status. Women income recipients were divided about equally between married women and the single and widowed or divorced. Male income recipients were usually heads of families, while the majority of women were secondary contributors to family income since a substantial proportion of single women lived with their parents rather than alone. In total, 62 per cent of women with incomes were married or were unmarried children living with their parents. The fact that the majority of women income recipients might not be entirely dependent upon the income they received probably exerted an important influence on their working patterns.

Males and females have different characteristics at low, medium and high incomes. As already noted, very low income among the male population showed a close correlation with age and tended to be associated with the very young and the old. The males in the younger age groups were largely unmarried and were still living at home with parents. Only somewhat over half of males with low incomes had been working currently or had been in the labour force during the previous year. In the younger age groups many males were probably still at school and the low incomes might be due to part-time employment; the oldest age groups in the lowest income bracket were primarily those in receipt of government transfer payments, the most important of which would be old age pensions.⁷ Most of these pensioners would have little or no other sources of income. The young and old were still a significant part of the next income group, those with incomes of \$1,000 to \$2,000; somewhat over one quarter of this group was in the youngest age group and one quarter was in the oldest age group. Somewhat more than 40 per cent were single or widowed and most of the single category were still resident with parents.

The assumption is commonly made that all males are family heads with relatives to support and that those with low current incomes have incomes inadequate to maintain their families. The demographic characteristics discussed

⁷For the year preceding the census, pension payments were \$660.

indicate that the low-income group among the male population was dominated by the extreme age groups, many of whom were not married—an important consideration in the interpretation of the statistics. For the young, low income was usually a transitory situation; when education was completed and labour force participation became full-time, incomes would rise substantially. For the older age groups, the low income status was more likely to be a permanent one but those married were likely to have smaller families than males in younger age groups.

Females in low-income groups showed somewhat different characteristics. The young and old were an important element in incomes under \$1,000 where 20 per cent of females were under 25 years of age and 29 per cent were 65 or over. Single women constituted only one fifth of this group and married women three fifths. As with males, the lowest income group of female income recipients contained a substantial proportion of older women living on government pensions, and the other important segment appeared to consist of married women who probably worked only on a casual or part-time basis. Those in the next income bracket, \$1,000 to \$2,000, were also, in the majority of cases, married women of all age groups. Except possibly for the oldest age groups, the relationship between age and income is much less pronounced for women than for men.

The characteristics of male income recipients changed from group to group as income rose. The higher the income the higher the proportion of married men and heads of households in the group and the higher the proportion in the middle age brackets as compared to those in younger brackets. Among those with incomes of \$2,000 to \$3,000, nearly 30 per cent were still unmarried and 45 per cent were under 35 years of age. Among those with the highest income, \$10,000 or more, only four per cent were single and 94 per cent were married and only 15 per cent were less than 35 years of age. The old were the largest group with incomes below \$1,000, those under age 25 constituted the largest group with incomes between \$1,000 and \$2,000, while those under age 25 and those aged 25 to 34 were the largest age groups with incomes between \$2,000 and \$3,000. The predominant group with incomes between \$3,000 and \$5,000 was males aged 25 to 34 and the largest age group with incomes above \$5,000 was males aged 25 to 44.

Among women income recipients the single, widowed and divorced group were over one half of all female income recipients with incomes above \$3,000. As indicated previously, these groups were much more likely to work than were married women and might be more likely to work full time. The correlation between age and income was less marked among women income recipients, although the youngest age group was the largest group with incomes between \$1,000 and \$3,000 and women between the ages of 45 and 54 were the largest group with incomes of \$5,000 to \$10,000. Surprisingly, over 20 per cent of women with incomes exceeding \$10,000 were 65 or over. As previous analysis has suggested, high income was much more likely to result from the ownership of assets rather than an earned income among women income recipients.

TABLE 3.12 — Percentage Distribution of Incomes by Sex and Age,
Year Ended May 31, 1961

Income group	Age						
	Under 25	25 — 34	35 — 44	45 — 54	55 — 64	65 — 69	70 and over
Males							
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Under \$500	22.0	2.2	1.9	2.7	4.4	6.7	1.0
\$ 500 — \$ 999 . .	13.4	2.8	2.4	3.3	6.2	17.9	43.3
1,000 — 1,499 . .	10.6	3.5	2.7	3.5	5.9	10.9	16.2
1,500 — 1,999 . .	8.5	4.0	3.1	4.0	6.1	10.9	10.6
2,000 — 2,499 . .	10.3	6.0	4.6	5.8	7.5	9.0	6.9
2,500 — 2,999 . .	8.6	7.3	5.8	6.6	7.2	7.9	5.0
3,000 — 3,499 . .	9.5	11.4	9.3	10.1	10.8	8.0	4.0
3,500 — 3,999 . .	6.5	11.4	9.9	9.9	9.4	5.9	2.8
4,000 — 4,499 . .	4.6	12.9	11.6	10.7	9.2	5.1	2.0
4,500 — 4,999 . .	2.4	9.7	9.4	8.0	6.3	3.4	1.4
5,000 — 5,999 . .	2.2	14.0	15.4	12.7	9.5	4.6	2.0
6,000 — 9,999 . .	1.2	12.3	17.9	15.8	11.7	6.3	3.0
10,000 and over . .	0.3	2.3	5.8	6.7	5.8	3.7	1.9
Totals	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Average income . . . \$	1,972	4,273	5,081	4,977	4,393	3,163	2,071
Median income . . . \$	1,735	4,054	4,444	4,192	3,601	2,200	1,176
Recipients No.	743,697	1,053,198	996,668	783,669	500,873	184,530	345,409
Females							
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Under \$500	28.0	23.1	25.1	24.6	27.5	24.4	4.1
\$ 500 — \$ 999 . .	14.7	13.2	14.0	15.0	20.1	41.5	68.3
1,000 — 1,499 . .	12.2	10.3	11.3	11.7	12.2	11.5	11.9
1,500 — 1,999 . .	11.8	9.3	9.8	9.7	9.0	6.6	5.6
2,000 — 2,499 . .	13.6	10.6	10.4	9.8	7.9	4.5	3.4
2,500 — 2,999 . .	8.7	9.4	7.9	7.0	5.4	2.8	1.9
3,000 — 3,499 . .	6.5	10.2	7.9	6.9	5.2	2.4	1.2
3,500 — 3,999 . .	2.5	5.9	4.8	4.5	3.1	1.5	0.8
4,000 — 4,499 . .	0.9	3.3	3.2	3.3	2.6	1.1	0.6
4,500 — 4,999 . .	0.4	1.6	1.7	1.9	1.5	0.7	0.5
5,000 — 5,999 . .	0.3	1.6	1.8	2.4	2.2	1.1	0.5
6,000 — 9,999 . .	0.3	1.1	1.7	2.6	2.5	1.4	0.7
10,000 and over . .	0.1	0.3	0.5	0.7	0.9	0.7	0.4
Totals	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Average income . . . \$	1,455	1,914	1,864	1,919	1,746	1,328	1,154
Median income . . . \$	1,909	1,683	1,482	1,444	1,098	808	836
Recipients No.	596,616	449,796	462,860	402,765	276,652	138,724	376,380

SOURCE: DBS, 1961 Census of Canada, Vol. IV, *Incomes of Individuals* (Cat. No. 98-501), Table A5.

3. INCOME BY AGE GROUPS

The interrelationship between age and income may be examined in Table 3.12, and the characteristics of income recipients in different age groups is summarized in Table 3.13.

The income pattern of males by age group is undoubtedly a reflection of the earnings patterns of labour force participants, since the majority of males below the age of 65 were in the labour force. Between the ages of 15 and 25, men are new permanent entrants into the labour force and at the beginning of their working careers. Salaries and wages earned are relatively low upon commencement of employment, as such participants have no working experience. With experience, seniority and promotion, earnings in many occupations begin to rise; for some occupations such increases may occur over a limited part of the working span only while in occupations requiring higher levels of education such as, for example, medicine, earnings may continue to rise over almost the entire working period. Chapters Four and Five explore in greater detail the relationship between occupation, age and education. For males, withdrawal from employment for reasons such as illness or voluntary retirement begin to occur after the age of 55; incomes tend to decline until in the oldest age groups average incomes are at levels similar to those of the youngest age groups and median incomes are lower than those of other age groups.

As Chart 3.3 shows, there was a considerable similarity in the income profiles of males in the two extreme age groups, those aged 15 to 24 and those aged 65 and over and between the income profiles of the age groups 25-34, 35-44 and 45-54. The income distributions of the young and old were very skewed with the median income below \$2,000; the proportion of young income recipients in low-income brackets was somewhat lower than that of the elderly. On the other hand, older income recipients were more likely to have incomes in excess of \$6,000 than were the young.

The age groups between 25 and 54 had more normal income distributions. Peak incomes were reported by males aged 35 to 54 whose average income was around \$5,000. In the age group 35 to 44 there were somewhat fewer incomes below \$3,000 and somewhat more over \$3,000 than among those aged 45 to 54. In all age groups between 25 to 54 the proportion with incomes below \$1,000 was low, in the range of four to six per cent. The income profile of the 55 to 64 age cohort showed substantial differences from the younger age groups although incomes were still much higher than for those 65 and over. Some 37 per cent had incomes below \$3,000 in contrast to 25 per cent of those aged 45 to 54 and the average was less than three quarters of the average income of the younger age group.

In all age groups, except those under 25, the majority of males were married and were heads of households. Over 90 per cent of all males with incomes who were under 55 years of age were classified as being either currently in the labour

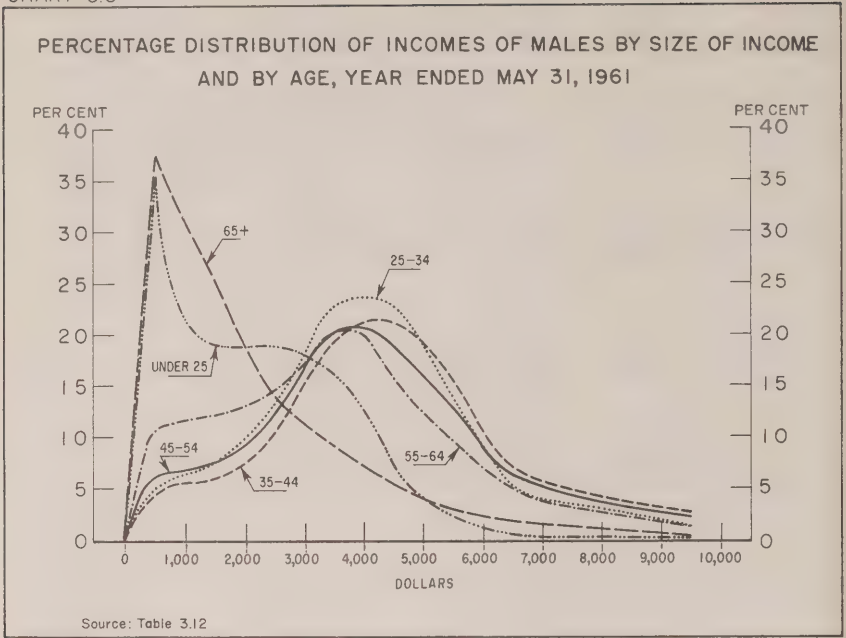
TABLE 3.13 — Characteristics of Income Recipients, by Sex and Age,
as at June 1, 1961

Item	Age							Total
	Under 25	25 — 34	35 — 44	45 — 54	55 — 64	65 — 69	70 and over	
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	
	Males							p.c.
Totals	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Marital status —								
Single	77.7	17.9	8.0	7.0	7.7	7.6	7.4	21.2
Married	22.2	81.7	91.0	91.1	87.5	81.9	68.4	75.4
Widowed or divorced	0.1	0.4	1.0	2.0	4.8	10.5	24.2	3.4
Relationship to head of household —								
Head	19.3	77.4	89.2	91.5	90.5	88.2	80.4	75.0
Unmarried children	63.1	9.3	3.4	1.9	0.7	--	--	13.5
Parents	--	--	--	0.3	1.5	3.8	10.2	1.1
Other relatives	7.5	5.8	3.2	2.6	2.2	2.1	2.8	4.2
Non-relatives	10.0	7.5	4.1	3.7	5.1	5.7	6.6	6.1
Major source of income —								
Wages and salaries	93.0	90.5	86.1	82.4	75.4	43.0	12.8	79.2
Net income from self-employment	3.4	6.8	10.0	11.8	11.2	8.5	3.9	8.1
Government transfer payments	2.0	2.3	3.3	4.1	7.2	23.2	61.9	8.6
Investment income	1.3	0.3	0.5	1.3	4.1	9.4	9.0	2.1
Other	0.3	0.2	0.2	0.4	2.1	16.0	12.3	2.0
Labour force participation —								
In current labour force	81.6	95.9	95.6	93.5	83.7	45.0	14.5	83.6
Not in current labour force	9.7	2.6	2.4	-2.9	4.4	7.2	2.1	4.1
Not in labour force	8.7	1.5	2.1	3.6	11.9	47.8	83.4	12.3

	Females							
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Totals	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Marital status —								
Single	70.4	24.3	15.3	14.8	15.1	9.0	8.5	27.8
Married	29.3	73.1	77.7	69.7	52.0	42.6	35.8	54.8
Widowed or divorced	0.3	2.7	7.0	15.4	32.9	45.5	55.7	17.5
Relationship to head of household —								
Head	3.0	8.6	13.9	22.4	34.9	39.2	38.9	18.8
Wife	22.7	62.3	68.4	61.2	44.9	36.5	30.6	46.9
Unmarried children	53.1	12.0	6.7	4.3	1.6	0.3	—	15.7
Parents	—	—	0.1	1.2	4.9	10.5	18.1	3.8
Other relatives	8.2	7.4	5.1	5.3	6.0	5.9	5.6	6.4
Non-relatives	13.1	9.6	5.8	5.6	7.6	7.6	6.7	8.4
Major source of income —								
Wages and salaries	90.9	81.4	74.2	67.3	47.1	17.2	2.9	62.4
Net income from self-employment	2.5	3.7	4.9	5.4	5.1	2.9	0.8	3.6
Government transfer payments	4.0	7.4	8.2	8.7	14.0	40.3	83.2	19.9
Investment income	2.1	6.1	11.0	16.4	27.5	29.8	9.2	11.4
Other	0.6	1.4	1.8	2.3	6.2	9.8	3.9	2.7
Labour force participation —								
In current labour force	73.6	66.5	65.8	62.4	43.9	16.1	3.1	53.6
Not in current labour force	14.1	12.7	8.6	6.8	4.9	2.5	0.5	8.4
Not in labour force	12.3	20.8	25.6	30.8	51.3	81.4	96.4	38.0

SOURCE: DBS, 1961 Census of Canada, Vol. IV, *Incomes of Individuals* (Cat. No. 98-501), Tables A5, A6 and A7, and *Incomes of Individuals* (Cat. No. 98-502), Tables B8 and B9. Distribution by major source calculated from unpublished data.

CHART 3.3



force or as reporting labour force experience during the previous year. In all age groups the majority derived most of their earned income from wages and salaries although they were more likely to be self-employed if they were between the ages of 35 and 64 than if they were younger. Above the age of 55, dependence upon government transfer payments as the main income source became more evident; nearly one quarter of those aged 65 to 69 and over three fifths of those aged 70 and over were in this category.

Although some variation occurred in female incomes as between age groups, the differences showed a much narrower range during the working years and, even after retirement, incomes showed less of a drop than among males. The highest average income among the working-age population was \$1,919 for women aged 45 to 54 which was only 32 per cent above the average income of those under 25. In contrast, for males the highest income among the working-age population (the average income of those aged 35 to 44) was two and one half times the average income of those below 25. In all age groups below 70, between 25 and 30 per cent of women income recipients reported incomes of less than \$500 and in all other age groups, except age group 25 to 34, median incomes were below \$1,500.

The majority of women with incomes in the youngest age group were single and the majority of those aged 25 to 64 were married. Widows and divorcees began to form a substantial segment of each age group above 45 years; some 15

per cent of those aged 45 to 54 and one third of those between ages 55 to 64 were widowed or divorced. There may be a correlation between this and the greater dependence upon transfer payments by women than by men. Among women aged 35 to 44, some eight per cent had transfer payments as their major source of income and this proportion increased substantially for the older age cohorts.

Labour force participation declined much more sharply among women income recipients after the age of 55 than was the case with men. Between the ages of 25 and 54 women were primarily dependent upon earned income but after 55 other types of income became much more significant. Among those aged 55 to 64 nearly one half reported various sources of unearned income as their major source of income with investment income the most prominent of these. For those aged 65 to 69 government transfer payments were the main component for two fifths of the group and another 30 per cent relied on investment income. One half the men in this age group still relied upon employment for their income but this was true of only one fifth of the women. After age 70, women were overwhelmingly dependent upon government payments.

Chapter Four

EARNINGS BY LABOUR FORCE CHARACTERISTICS

The income sources of the adult population discussed in the previous chapter can be categorized as *factor* income, that is, income derived from factors of production, labour and capital or *transfer* income, income made available by different levels of government under social security legislation or under similar legislation. The most important component of income is income earned as a wage or salary earner or as a self-employed person and the amount of labour income earned is the most important determinant of the size of total income received. It is also the basic determinant of the extent of inequality inherent in the income distribution. In aggregate, approximately 90 per cent of income received by male income recipients was income from employment and for 87 per cent of males, this was the most important income source. Employment income was somewhat less significant for female income recipients; approximately 77 per cent of total income was from this source but it was the major source of income for only 66 per cent of the female income-receiving population.

Income from capital in Canadian circumstances had little effect on income inequality as it was usually a secondary rather than a primary income source. The size of transfer payments receipts is normally regulated by the relevant government legislation and ceilings are usually set at relatively low limits.¹ The census did not collect data that would allow any analysis of the factors influencing the size of investment income receipts or the composition of transfer payments receipts other than family allowances and old age pensions, although Chapters 8 and 9 examine the population dependent upon transfer income. Information on asset ownership and the channels of asset accumulation is a prerequisite for the analysis of investment income, but more information on personal characteristics and the sources of transfer income is required to examine the reasons for dependence upon transfer payments.

¹ Because income recipients may receive different types of transfer payments it is not possible to determine the maximum amount which could be paid to individuals although an examination of the ceilings payable under different welfare plans suggests that, exclusive of pensions to retired government employees, the maximum would appear to be around \$5,000. In the year preceding the census, old age pensions including supplementary payments in some provinces had a ceiling of \$900, maximum family allowance payments per family approximately \$1,300, unemployment insurance \$1,900. The largest transfer payments are probably payments of workmen's compensation and pensions to totally disabled veterans. The annual payment to a totally disabled veteran with a wife was \$2,880 with additional payments for dependent children.

Table 4.1 — Percentage Distribution of Individuals by Sex, by Labour Force Participation^a and by Size of Total Income, Year Ended May 31, 1961

Income group	Males			Females		
	In labour force		Not in labour force	In labour force		Not in labour force
	Current	Non-current		Current	Non-current	
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Under \$500	3.5	23.5	15.1	12.6	42.6	32.4
\$ 500 – \$ 999	3.7	15.9	38.7	11.9	21.2	41.1
1,000 – 1,499	4.4	12.4	14.8	12.4	13.2	10.0
1,500 – 1,999	4.7	9.5	10.2	12.5	8.0	5.1
2,000 – 2,499	6.7	8.8	5.9	14.5	5.8	3.2
2,500 – 2,999	7.4	6.8	3.9	11.0	3.4	1.8
3,000 – 3,499	10.8	6.6	2.8	10.3	2.7	1.5
3,500 – 3,999	10.2	4.1	1.9	5.7	1.2	0.9
4,000 – 4,499	10.8	3.3	1.3	3.4	0.7	0.8
4,500 – 4,999	8.0	2.1	0.9	1.8	0.3	0.6
5,000 – 5,999	12.1	2.8	1.5	1.9	0.3	0.8
6,000 – 9,999	13.1	2.8	2.0	1.7	0.4	1.1
10,000 and over	4.4	1.3	1.2	0.3	0.1	0.7
Totals	100.0	100.0	100.0	100.0	100.0	100.0
Average income \$	4,444	2,064	1,611	2,143	1,013	1,100
Median income \$	3,931	1,427	950	2,020	674	714
Persons No.	3,854,582	188,761	564,701	1,449,726	227,423	1,026,644

^aLabour force participation refers to labour force participation on June 1, 1961, or during the preceding twelve months. The "current" labour is the labour force as of June 1, 1961 while the "non-current" consists of persons in the labour force during the year preceding June 1. The category "not in labour force" consists of all other income recipients.

SOURCE: DBS, 1961 Census of Canada, Vol. IV, *Incomes of Individuals* (Cat. No. 98-501), Table A1; *op. cit.*, *Incomes of Individuals* (Cat. No. 98-502), Tables B 8 and B 9.

This chapter therefore focuses only on income derived from employment and the characteristics of earners with different levels of earnings. Table 4.1 summarizes the distribution of total income of individuals under three categories — the income distribution of persons in the current labour force; the income distribution of persons with labour force experience during the twelve months before the census date, but outside the labour force at the census date; and the income distribution of persons reporting no labour force attachment during the year. For males, income levels were highest for those in the current labour force and lowest for those with no labour force experience; those who worked even part of the year were in a better relative position than those outside the labour force. Among women not in the current labour force, incomes of those with some labour force participation during the year were very similar to the incomes of labour force non-participants, although the characteristics of the two groups differed. The women with some labour force experience during the year were concentrated in the youngest age groups and consisted largely of students working only part of the year and married women in the labour force on a part-time basis, while the labour force non-participants were concentrated in the older age groups. Male income recipients who had been in the labour force in the year preceding the census, but who had left the labour force by June 1, were also predominantly in the younger age groups, although a significant proportion were over 55 years of age. The data were inadequate for carrying out any thorough analysis of the earnings of part-year participants because they tended to be drawn from segments of the population who were interested only in occasional or irregular employment — the young, the old and the married female population. Among the younger age groups, for example, the occupation reported might not be the intended permanent occupation of the worker and little information existed that would allow any classification of the reasons behind withdrawal from the labour force.

The analysis in this report is restricted to persons in the current labour force and their receipts of income from employment. The *current labour force* consists of persons in the labour force as of June 1, 1961, while *income from employment* is the total amount received as gross cash wages and salaries or as net income from self employment either from operating a business, carrying on a professional practice or for working as an own account worker during the previous twelve months.²

1. DETERMINANTS OF EARNINGS

Inequality of income exists not only between labour force participants and non-participants but also among labour force participants themselves. An examination of the distribution of earnings by size makes it evident that labour force participation in itself will not provide an income recipient with some guaranteed

²The questionnaire asked for income received during twelve months preceding the census date June 1, 1961 but if respondents were unable to supply this it was suggested that they report income for the calendar year 1960.

minimum income; very low incomes may occur even among members of the labour force. The distribution of income from employment by size and by sex of income recipient for the current non-farm labour force is summarized in Table 4.2. Median earnings for males were approximately \$3,800 and for women \$2,000; nearly one fifth of males reported income from employment of less than \$2,000 and one quarter of women earned less than \$1,000.

**Table 4.2 — Distribution of Current Non-farm Labour Force, by Sex
and by Size of Income from Employment, Year Ended
May 31, 1961**

Income group	Males		Females	
	No.	p.c.	No.	p.c.
Under \$500	153,874	4.0	196,683	13.7
\$ 500 — \$ 999	163,888	4.3	176,274	12.3
1,000 — 1,499	186,128	4.9	177,513	12.3
1,500 — 1,999	187,413	4.9	178,434	12.4
2,000 — 2,499	277,401	7.3	211,424	14.7
2,500 — 2,999	283,125	7.4	155,393	10.8
3,000 — 3,499	450,921	11.8	149,885	10.4
3,500 — 3,999	390,517	10.2	79,253	5.5
4,000 — 4,499	417,829	10.9	45,089	3.1
4,500 — 4,999	290,543	7.6	22,012	1.5
5,000 — 5,999	420,823	11.0	23,164	1.6
6,000 — 9,999	450,068	11.8	18,960	1.3
10,000 and over	151,917	4.0	3,587	0.2
Totals	3,824,447	100.0	1,437,671	100.0
Average employment income \$	4,178		2,051	
Median employment income \$	3,765		1,972	

SOURCE: DBS, 1961 Census of Canada, Vol. IV, *Incomes of Individuals* (Cat. No. 98-502), Table B 1.

These are total earnings received by the current labour force during the one-year period preceding the 1961 Census, not annual rates of pay. The size of these earnings is affected by both long-run and short-run factors. Among the long-run factors that influence the level, the most significant are probably sex of worker, age, occupation, education, class of worker and place of residence — province, rural, urban and so forth. Among short-run factors are current economic conditions and their effect on the amount of employment available and on wage rates, illness, or other forces that may affect labour force participation patterns by affecting the number of weeks worked or the hours worked per week. Some of these influences are examined in these chapters, although the data can explain only some of the variations in earnings. In addition to the economic and demographic features mentioned above, differences in the size of earnings may also be attributable to less tangible characteristics not as susceptible to statistical measurement, such as

differences in levels of intelligence among individuals, restriction of entry to some occupations, the impact of trade unionism, or the existence of discrimination because of the age, sex or race of the worker. For self-employed persons whose earnings are included in these statistics, earnings may represent a mixture of a return to the investment in the business as well as compensation for the labour of the proprietor. In fact, in some instances, earnings may be largely a return to capital rather than to labour so that a comparison of the earned income of wage-earners with the earned income of the self-employed may not be entirely valid. Imputations of returns to labour and returns to capital for the self-employed present conceptual difficulties and, if attempted, are usually arbitrary.

The following analysis is largely restricted to an examination of some of the permanent rather than the transitory factors influencing earnings — sex, age, schooling, occupation and class of worker and level of education.³ Since most of the data to be examined are annual earnings realized rather than rates of payment, the size of earnings reported will also reflect short-run factors which may depress annual earnings below normal levels. Ideally, for the study of permanent factors, statistics are needed on the earnings that accrue or would accrue if employment were not interrupted. Census data do not permit breakdowns that would allow for an adequate segregation of the part-time and part-year workers from those who worked full-time the year round. Persons working for wages and salaries were asked to report *in* how many weeks they worked for wages and salaries but no information was secured on the duration of employment of the self-employed, number of weeks of unemployment or the number of weeks an individual was not in the labour force. This method of reporting weeks of employment does not permit a differentiation between full-time and part-time work during the year for wage-earners reporting the same number of weeks of employment. For example, wage-earners working one day per week for the year and wage-earners working five days per week for the year would both be classified as having worked in 52 weeks. Although, in addition to the question of weeks of employment, wage-earners were asked to report the number of hours usually worked per week, the number of hours reported may not be applicable to all of the weeks worked, but may be representative of current employment only. As a result, only an imprecise classification is possible of paid workers as between full-time and part-time workers. Persons who worked only part-year as wage or salary earners are identifiable but some of these may have been in the labour force as self-employed during the rest of the year rather than outside the labour force.

2. INCOME FROM EMPLOYMENT BY CHARACTERISTICS OF WORKER

WAGE EARNINGS BY SEX AND DURATION OF EMPLOYMENT

The differentials in earned income of men and women workers reported for the labour force were almost as pronounced as the total income differentials

³ Regional patterns are not discussed in this chapter but are examined in Chapter 7.

for all male and female income recipients discussed in the previous chapter. Average income of female income recipients was 41 per cent of the male average, and average earned income per female in the current labour force was only 49 per cent of the equivalent average for the male labour force.

The marked differences in the participation rates and working patterns of the male and female populations of working age have already been commented upon.⁴ Primarily because of marriage and the responsibilities associated with marriage, women had much lower labour force participation rates. Further, of those who did seek employment, a much higher proportion worked only part of the year than did the male labour force. Male entry into the labour force after the completion of schooling is usually a permanent entry until retirement starts to occur in the older age group, usually beyond the age of 55. Women, to a considerable extent, move in and out of the labour force during their lifetimes. The duration of employment during the year, therefore, constitutes an important explanation of differences in levels of annual earnings by sex of worker, and the unavailability of such data in detail by labour force characteristics makes it impossible to segregate the amount of time worked as an explanatory factor of differences in annual earnings.

Approximately 89 per cent of women and 80 per cent of men in the current labour force were employees so that such data as exist covered the majority of the labour force. Among all wage-earners, 71 per cent of males reported working in 40 to 52 weeks for a usual work week of 35 hours or more, but only 57 per cent of women employees reported a similar degree of participation.

Cross-classifications of wages and salaries earned are available only by weeks reported and age, and by weeks reported and broad occupational group.⁵ If an examination of earnings differentials is restricted to earnings of full-year workers, defined as those working in 49 to 52 weeks and usually working 35 hours per week or more, there is some narrowing of the differences between the earnings of the two sexes. Table 4.3 summarizes the distribution of wages and salaries earned by all wage and salary earners in the current labour force and the wages and salaries earned by those working the full year full-time.

Average wages and salaries of full-year women workers were \$2,620 or 59 per cent of the male average of \$4,446 in contrast to 54 per cent for over-all average female earnings as a ratio of male earnings.

⁴The labour force behaviour of men and women is discussed in more detail, DBS Census Monograph. *Historical Estimates of The Canadian Labour Force* by Sylvia Ostry and Frank Denton (Cat. No. CS 99-549/1967). An analysis may also be found in a study of the Department of Labour, *Women at Work in Canada*, Ottawa, 1964.

⁵Detailed occupational information for Canada not available.

Table 4.3 — Percentage Distribution of Wage-Earners in Current Labour Force by Sex and Size of Wages and Salaries, Year Ended May 31, 1961

Income group	All wage-earners		Full-year workers ^a	
	Male	Female	Male	Female
	p.c.	p.c.	p.c.	p.c.
Under \$1,000	9.6	25.2	0.8	4.6
\$ 1,000 — \$1,999	11.0	25.1	3.9	22.5
2,000 — 2,999	15.6	26.4	13.4	37.5
3,000 — 3,999	22.1	15.8	26.2	24.3
4,000 — 4,999	18.7	4.8	24.4	7.3
5,000 — 5,999	10.6	1.5	14.3	2.2
6,000 — 6,999	5.2	0.6	7.2	0.9
7,000 — 9,999	5.0	0.5	6.9	0.7
10,000 and over	2.1	0.1	2.9	0.1
Totals	100.0	100.0	100.0	100.0
Average wages and salaries \$	3,679	1,995	4,446	2,620
Median wages and salaries \$	3,624	1,988	4,234	2,610

^aWorking in 49 to 52 weeks during the previous year and usually working 35 hours or more a week.

SOURCE: DBS, 1961 Census of Canada, Vol. III, Part 3, *Earnings of Wage-Earners by Marital Status and Age* (Cat. No. 94-536), Table 15, for columns 1 and 2; Vol. VII, Part 1, *Earnings and Income Distribution* (Cat. No. 99-524) for columns 3 and 4.

WAGE EARNINGS BY SEX AND AGE

As these statistics indicate, confining the comparison of earnings to two groups with homogeneous characteristics as to weeks and hours of employment and class of worker status eliminates only a small fraction of earnings differentials. Other attributes that may exert a greater influence on the level of earnings are age, level of schooling and occupation. Age can be considered as an imperfect proxy for the experience that may develop on the job in the years after commencement of continuing employment. As the census did not collect data on the number of years worked no information exists as to the actual work history of the labour force. Age can be considered only, as a partial indicator of experience because the age of permanent entry into the labour force would be closely related to the age at which formal schooling was completed. For males entry into unskilled occupations where little schooling is required may be at the age of 15 or 16 but entry into occupations requiring long and intensive training may not occur until age 25 or 26. For males, different occupations would embody different periods of experience for the persons constituting the same age group.

Because of the tendency of the female labour force to move into the labour force after completion of schooling and to leave again for some years after marriage, there may be little correlation between age and job experience. The married

woman returning to work at 35 or 40 years of age after a 10- or 15-year withdrawal from the labour force may find that re-entry into the labour force is possible only at salary or wage levels offered to inexperienced workers with no previous work history. This would be especially the case in occupations where on-job experience is important.

Much smaller variations are evident in earnings by age groups among female wage-earners as compared with male wage-earners in the labour force during the full year. Average and median wages and salaries of male and female employees in the current labour force are summarized in Table 4.4.

Table 4.4 — Average and Median Wages and Salaries, by Age and Sex of Wage and Salary Earners in Current Labour Force Employed in 49 to 52 weeks^a during Year Ended May 31, 1961

Age group	Males		Females		Ratio female to male	
	Average	Median	Average	Median	Average	Median
	\$	\$	\$	\$		
15 - 19 . .	2,091	2,155	1,831	1,906	0.88	0.88
20 - 24 . .	3,216	3,264	2,409	2,507	0.75	0.77
25 - 34 . .	4,396	4,333	2,814	2,859	0.64	0.66
35 - 44 . .	4,926	4,648	2,813	2,786	0.57	0.60
45 - 54 . .	4,891	4,512	2,849	2,754	0.58	0.61
55 - 64 . .	4,542	4,140	2,738	2,621	0.60	0.63

^aThese are average earnings of employees in the current labour force who reported usually working 35 hours a week or more.

SOURCE: DBS, 1961 Census of Canada, Vol. III, Part 3, *Earnings of Wage-Earners by Marital Status and Age* (Cat. No. 94-536), Table 15, for columns 1 and 2; Vol. VII, Part 1, *Earnings and Income Distribution* (Cat. No. 99-524) for columns 3 and 4.

Male wage-earners showed a rising earnings curve from the youngest age groups until the ages of 35 to 44 when peak earnings were reported, although earnings for the next age group were only slightly lower. If average earnings of males and females aged 35 to 44 were taken as 100, average earnings of the other age groups would show the relationship given in Table 4.5.

The highest average earnings, by age groups, among males between ages 15 and 65 were nearly two and one half times the lowest average earned, but among women the highest earnings were only some 50 per cent greater than the lowest average reported. For women, average earnings showed remarkable stability after the age of 25. As has been indicated, there are no data available on discontinuities in employment during the working lifetime of women to examine the influence of such interruptions on earnings by age. Many of the women in thire thirties and forties might have been recent re-entries into the labour force.

**Table 4.5 — Ratio of Average Wages and Salaries by Age Group to
Average Wages and Salaries of Age Group 35-44, Year Ended
May 31, 1961**

Age group	Males	Females
15 — 19	0.42	0.65
20 — 24	0.65	0.86
25 — 34	0.89	1.00
35 — 44	1.00	1.00
45 — 54	0.99	1.01
55 — 64	0.92	0.97

SOURCE: Calculated from Table 4.4.

Interestingly, average earnings among the youngest age groups shown indicate the differentials between male and female earnings were relatively small for the young; the male average earnings being only 14 per cent higher than those of females. Studies of the transition from school to labour force participation suggest that schools, at least at the secondary level, prepared girls for immediate careers after graduation more readily than boys.⁶ The age group 15 to 19 in the labour force would consist primarily of secondary and elementary school graduates or school girls working part-time. Girls can obtain permanent employment more easily after leaving school in what are considered to be traditional feminine careers, such as the clerical occupations and other occupations favoured by women require relatively little additional training beyond secondary school, as for example, teaching or stenography. Boys, on the other hand, are often faced with a long apprenticeship and go on to obtain more advanced training in technical institutes or at universities. Secondary or technical school graduation qualifies girls for immediate employment in white collar and service occupations but boys, except for those who might have completed vocational training, usually must obtain further training. Thus, boys appear to experience greater difficulty in finding employment in the first years after completing elementary or secondary school and, in recent years, the age group 15 to 19 had high rates of unemployment.⁷ Further, of those working, many might be in occupations involving some years of on-job apprentice training with accompanying low wages during the initial years of apprenticeship. These factors may have had less effect on the earnings of girls in the youngest age groups so that, for the earliest years, annual earnings of the young of both sexes were nearly equal.

A standardization of earnings by age was calculated to see whether differences in the age structure of the male-female labour force could account for

⁶See, for example, Oswald Hall and Bruce McFarlane, *Transition from School to Work*, Department of Labour, The Interdepartmental Skilled Manpower Training Research Committee, Report No. 10, Ottawa, 1962.

⁷Unpublished data from the monthly labour force survey of 1961 show that unemployment rates for the age group 15 — 19 were more than twice as high for males as for females.

some of the earnings differentials. For the group of full-year employees, average female earnings were standardized by the male age distribution. Average earnings of all female workers standardized on age were \$2,726 or 61.3 per cent of the male average as compared with a ratio of 58.9 per cent for the unstandardized average. Little of the differential is removed by standardizing by age, which is not unsurprising in view of the similarity of average earnings for all female age groups between ages 25 and 65.

INCOME FROM EMPLOYMENT BY AGE AND EDUCATION

One qualification is necessary to the above comments on age and earnings reported by women workers. When the level of education is added as a variable, age-earnings profiles of women do indicate differences between age groups. Women in the labour force who were university graduates showed greater variability of earnings by age than did women with only elementary or secondary school educations. The earnings of women with a secondary school education were higher than the earnings of women with only elementary schooling and also exhibited more variability.

However the differentials in average earnings between age groups for the female labour force with university training were substantially less than the differential for males with university training. Table 4.6 summarizes average earnings reported by sex and age for selected levels of schooling of the non-farm labour force.

These statistics are for all workers including part-time workers. If data by age and level of schooling were available for the full-time labour force only, more distinct age-earnings profiles might be evident for women. When duration of employment was examined for individual occupations, the female labour force in more highly paid occupations showed more stable employment patterns than in lower paying occupations. The more highly paid occupations would demand more education as a prerequisite while higher earnings might in themselves induce women to work on a year-round basis.⁸

The female labour force, as a whole, tended to be better educated than the male labour force. Although the median years of schooling of the female labour force were not much higher than for the male labour force, the proportion with elementary schooling only was substantially lower and the proportion with four to five years of secondary school education was higher.

Median schooling for males was approximately one year of secondary school and for women it was two years of secondary school. However, 44 per cent of males compared with only 30 per cent of the female labour force had only elementary school. Somewhat over one third of women workers had four years or

⁸ For evidence, see DBS, 1961 Census of Canada, *Earnings, Hours and Weeks of Employment of Wage-Earners by Occupations* (Cat. No. 94-539).

more of secondary schooling but only one quarter of men had this level of education, although the male labour force had a higher proportion with university graduation than did the female labour force. These observations about the calibre of female education vis-à-vis male education must be qualified somewhat by the fact that the census measured only the amount of education received in elementary and secondary schools and universities. The census did not measure training obtained through such means as trade schools, and teachers' colleges, or through apprenticeship programs. Education received through normal educational channels in elementary schools, secondary schools or universities might account for only a part of the background needed to enter many occupations. Supplementary training might have been more significant for men than for women and, if taken into consideration, might lessen the apparent differences between the amount of schooling each sex had completed.

Table 4.6 — Average Earnings of Wage and Salary Earners and Total Non-farm Labour Force by Sex, Age and Selected Level of Schooling, as at June 1, 1961

Schooling and age group	Wage and salary earners ^a			Non-farm labour force		
	Average		Ratio F/M	Average		Ratio F/M
	Male	Female		Male	Female	
	\$	\$		\$	\$	
Elementary Schooling —						
Under 25	1,784	1,171	0.66	1,928	1,227	0.64
25 — 34	3,035	1,550	0.51	3,311	1,521	0.46
35 — 44	3,312	1,560	0.47	3,653	1,627	0.45
45 — 54	3,285	1,575	0.48	3,648	1,664	0.46
55 — 64	3,168	1,518	0.48	3,480	1,617	0.46
Totals	2,990	1,458	0.49	3,345	1,537	0.46
Secondary School 4 — 5 years —						
Under 25	2,435	1,960	0.81	2,497	2,000	0.80
25 — 34	4,536	2,595	0.57	4,760	2,437	0.51
35 — 44	5,349	2,565	0.48	5,779	2,577	0.45
45 — 54	5,547	2,760	0.50	6,130	2,548	0.42
55 — 64	5,286	2,878	0.54	5,944	2,920	0.49
Totals	4,450	2,393	0.54	4,813	2,438	0.51
University Degree —						
Under 25	2,994	2,721	0.91	3,406	2,699	0.79
25 — 34	5,923	3,802	0.64	6,909	3,873	0.56
35 — 44	7,928	4,343	0.55	9,966	4,256	0.43
45 — 54	8,336	4,798	0.58	10,821	4,866	0.45
55 — 64	8,066	5,080	0.63	10,609	5,055	0.48
Totals	6,968	4,061	0.58	8,866	4,067	0.46

^aAverages for wage and salary earners are average wages and salaries earned; for the total labour force the averages represent average earnings from all employment either as an employee or in a self-employed capacity.

SOURCE: Wage-earners data are unpublished data from the 1961 Census. For male non-farm labour force aged 25 to 64 data obtained from 1961 Census of Canada, Vol. IV, *Incomes of Individuals* (Cat. No. 98-502), Table B6. Data for males and females ages 15-64 are shown in the statistical appendix to this chapter which shows earnings by broad occupation and level of schooling.

**Table 4.7 — Percentage Distribution of the Total Current Labour Force
by Level of Schooling, as at June 1, 1961**

Level of schooling	Males	Females
	p.c.	p.c.
Elementary —		
Less than 5 years	7.1	3.7
5 years and over	37.3	26.3
Secondary —		
1 — 3 years	31.1	36.0
4 — 5 years	15.3	26.3
University —		
Some university	4.3	5.0
Degree	4.9	2.8
Totals	100.0	100.0

SOURCE: DBS, 1961 Census of Canada, *Occupations by Sex Showing Age, Marital Status and Schooling* (Cat. No. 94-509), Table 17.

Despite these reservations, it can reasonably be said that educational differences were not a factor in accounting for lower female earnings; on the contrary, the direction of the differences was such that education should be expected to have had some equalizing effect. The statistics shown in Table 4.6 suggest that when comparisons are restricted to employees only, education did diminish the size of the gaps between male and female earnings by age groups but no such effect was evident when the total labour force was examined. For wage- and salary-earners, the higher the level of education, the smaller the difference in earnings of males and females in the same age group and possessing the same level of education. But it must still be noted that average wages and salaries of women with secondary school graduation were lower than the average earnings of males with only elementary schooling, and that women with some university training or university degrees reported lower averages than males with only secondary school education.

When the comparisons are extended to the non-farm labour force as a whole, including the self-employed and employers as well as employees, the differentials in earnings by age and schooling were as great for higher levels of schooling as for the less educated. The relationship between the average earnings of male and female university graduates was approximately the same as the relationship between the average earnings of the segments of the labour force having only elementary schooling while differences were somewhat narrower for those who completed four to five years of secondary schooling. This may be attributed to different patterns of earnings by class of worker for the two sexes. Among the male labour force, males who were self-employed or employers, on average, had higher earnings than did males who were employees; on the other hand, average earnings of self-employed women differed little from average earnings of those on a wage or salary.

Many of the occupations with high earnings, such as medicine and law, had a high proportion of self-employed and consisted largely of university graduates. Women with university degrees were usually found in salaried occupations.

3. OCCUPATION AND EARNINGS

OCCUPATIONAL STRUCTURE

A partial explanation as to why, for higher levels of education, the level of schooling appears to have such limited effect in narrowing the earnings gap between the male and female labour force may be the occupational structure of the two groups within various levels of schooling. It is obvious in an examination of the occupational distribution of each that their occupational choices are not the same.⁹ A limited number of occupational categories are completely closed to women because, for example, the work may be physically too demanding. The occupational classes of logging, fishing, trapping, hunting and mining are comprised almost entirely of males. To the extent that a woman is found in agricultural occupations, it is usually as an unpaid family worker on the farm of a husband or father rather than as a paid worker or a farm operator. With the possible exception of mining, these are occupations that demand little training or education for entry and in which earnings tend to be at very low levels. Exclusion of women from these occupations would not result in lower earnings for women.

Table 4.8 shows the distribution of the male and female labour force with selected levels of schooling by broad occupational groups. For males with only elementary schooling, the largest proportion, approximately one third, worked as craftsmen and production process workers. This occupational group includes production workers in manufacturing, tailors, carpenters, machinists and mechanics and construction occupations such as painters, electricians and bricklayers. Nearly one fifth of the group with elementary schooling were farmers and farm workers. The remainder were found scattered through other occupational groups; some six per cent, for example, were in managerial and professional occupations.

With higher levels of education, as might be expected, the pattern of male employment shifted markedly. Of those who completed four to five years of secondary school, some 30 per cent were in managerial and professional occupations, approximately one quarter were in clerical or sales occupations and only slightly over one fifth were craftsmen and production workers. Among those with university degrees, 17 per cent were in managerial positions and 69 per cent followed professional and technical careers.

⁹ For a discussion of the occupational composition of the labour force and of changes through time, see Noah M. Meltz, *Changes in the Occupational Composition of the Canadian Labour Force 1931-1961*, Occasional Paper No. 2, Economics and Research Branch, Department of Labour, Ottawa, March 1965.

Table 4.8 — Percentage Distribution of Males and Females in Current Labour Force with Selected Levels of Schooling by Broad Occupation, as at June 1, 1961

Occupational group	Males				Females			
	Elementary schooling	Secondary 4-5 years	University degree	Total labour force	Elementary schooling	Secondary 4-5 years	University degree	Total labour force
Managerial	p.c. 5.7	p.c. 18.4	p.c. 17.1	p.c. 10.2	p.c. 3.3	p.c. 3.1	p.c. 3.5	p.c. 3.3
Professional and technical	0.8	11.0	68.5	7.6	2.0	28.1	78.1	15.4
Clerical	3.1	14.4	2.8	6.9	8.3	45.4	11.8	28.8
Sales	2.8	10.1	3.7	5.6	7.8	6.1	1.7	8.4
Service and recreation	8.3	7.9	2.9	8.5	39.5	8.7	2.9	22.4
Transport and communication	8.8	4.8	0.5	7.5	1.2	1.9	0.3	2.2
Farmers and farm workers	18.7	4.6	0.9	12.2	9.6	1.2	0.3	4.3
Loggers	3.0	0.4	0.1	1.7	--	--	--	--
Fishermen, trappers and hunters	1.4	0.1	↓	0.8	--	--	--	--
Miners and quarrymen	1.9	0.7	0.1	1.4	--	--	--	--
Craftsmen and production workers	34.1	21.6	2.2	28.8	23.7	2.9	0.6	11.6
Labourers	9.4	2.6	0.3	6.3	2.4	0.3	0.1	1.2
Not stated	2.2	3.3	1.0	2.6	2.3	2.4	0.8	2.5
Totals	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SOURCE: DBS, 1961 Census of Canada, Occupations by Sex, Showing Age, Marital Status and Schooling, (Cat. No. 94-509), Table 17.

For all levels of schooling the female labour force shows a greater concentration of employment in particular occupational categories than does the male labour force.¹⁰ Approximately 40 per cent of women workers with only elementary schooling were in service occupations and nearly one quarter were in the category of production workers. The service occupations were characterized by low wage rates and, for the female labour force, by a high degree of part-time and part-year employment. Less than one half of women employed in service occupations worked in 40 weeks or more for periods of 35 hours or more per week. For a large segment of the male labour force in service occupations, earnings were also at very low levels and it is probable that wage rate differentials for men and women might be less in these occupations than in occupations requiring greater skills. Service occupations include two quite different categories of occupations. One category, called protective occupations, includes the armed forces of all ranks, police forces and firemen. Earnings in these service occupations were comparable to earnings in some of the skilled craft occupations. These occupations were held almost entirely by males. The second category includes occupations such as waiters or waitresses, cooks, barbers, hairdressers, janitors and charwomen. In this second category the number of women engaged in these occupations was substantially greater than the number of men. Male earnings in these occupations were also at very low levels and it is possible that the preponderance of women workers in such service occupations might have influenced the wage rates of men. Although, as in all other occupational groups, average male earnings were higher, this might be due to the greater incidence of full-year employment among male service workers rather than to higher wage rates.¹¹

Service occupations might be attractive to women workers because these have been expanding areas of employment, little skill or training was required for entry and part-time or casual employment is readily found by those who do not want to become attached to the labour force on a full-time basis. In the crafts and production occupations, women workers also tend to concentrate in certain traditionally feminine occupations. In 1961, nearly half of such women workers were in occupations associated with the textile and clothing industries — some 38 per cent worked as tailoresses, dressmakers, sewers and related occupations, and seven per cent as spinners, knitters and weavers. In these occupational categories the number of women workers almost equalled or exceeded the number of male workers. Another production occupation employing a substantial proportion of female workers was bottling, wrapping and labelling. Here again there were more female than male workers. The textile, clothing and packaging occupations accounted for approximately 60 per cent of women workers in the crafts and production occupations, in contrast to only five per cent of males in this occupational category. Again, these were occupations in which male earnings were relatively low.

¹⁰ Meltz, *op. cit.*, p. 31, points out that 89 per cent of the female labour force was in five occupational groups.

¹¹ Statistics not available at the time of writing for individual occupations to examine service occupations excluding the protective service occupations.

Table 4.9 — Average Earnings of Males and Females in Current Non-farm Labour Force,
by Selected Levels of Schooling, Broad Occupation Groups and Age, Year Ended
May 31, 1961

Occupation and age	Males			Females		
	Elementary ^a schooling	Secondary 4-5 years	University ^b degree	Elementary ^a schooling	Secondary 4-5 years	University ^b degree
Managerial —	\$	\$	\$	\$	\$	\$
15 — 24	3,015	3,935	4,436	—	2,457	—
25 — 34	4,981	6,078	8,527	1,886	3,081	3,981
35 — 44	5,490	7,690	11,140	2,072	3,747	4,764
45 — 54	5,635	8,375	13,028	2,324	3,811	5,811
55 — 64	5,558	8,586	13,242	2,094	3,699	—
Professional and technical —						
15 — 24	2,291	3,116	3,924	1,952	2,315	2,984
25 — 34	4,212	5,071	6,890	2,440	2,873	4,083
35 — 44	4,840	6,053	10,135	2,327	2,908	4,748
45 — 54	4,864	6,511	10,745	2,560	3,369	5,300
55 — 64	4,522	6,589	10,581	2,618	3,646	5,726
Clerical —	2,245	2,442	2,156	1,809	2,134	1,789
15 — 24	3,427	4,116	4,214	2,178	2,687	2,839
25 — 34	3,720	4,514	5,232	2,124	2,687	2,851
35 — 44	3,716	4,425	4,846	2,252	2,832	2,910
45 — 54	3,635	4,202	4,268	2,343	2,903	2,793
55 — 64	1,730	2,156	3,400	1,136	849	—
Sales —	3,615	5,072	6,514	1,378	1,633	—
15 — 24	4,071	5,973	7,499	1,410	1,592	—
25 — 34	4,081	5,763	6,818	1,475	1,619	—
35 — 44	3,537	5,759	6,649	1,624	1,852	—
45 — 54						
55 — 64						

Service and recreation —						
15 — 24	1,737	2,411	2,645	884	1,114	—
25 — 34	2,989	4,294	6,069	1,241	1,722	—
35 — 44	3,217	5,155	7,665	1,235	1,641	2,224
45 — 54	3,073	4,792	7,968	1,268	1,724	—
55 — 64	2,820	3,282	—	1,194	1,522	—
Craftsmen and production workers —						
15 — 24	2,242	2,740	2,112	1,401	1,555	—
25 — 34	3,526	4,482	5,210	1,832	2,048	—
35 — 44	3,769	4,779	5,685	1,909	2,105	—
45 — 54	3,723	4,658	5,138	1,918	2,164	—
55 — 64	3,578	4,411	4,800	1,868	2,053	—

a Excludes workers reporting no schooling.

b Where no statistics are shown, the estimated number was less than 250.

SOURCE: For males aged 25 — 64, data are published in DBS, 1961 Census of Canada, *Incomes of Individuals* (Cat. No. 98-502), Table B6. Other data are from unpublished census tables. The number of workers and average earnings are shown at the end of the chapter in Appendix Table 4.A.1.

Male workers with four to five years of secondary schooling had possibly the most varied employment patterns among the male labour force and were more widely distributed among the various occupational groups than those with more or less education. The majority of women workers with this level of education were concentrated in two broad occupational groups – clerical occupations, which accounted for almost one half of all employment of women, and professional and technical occupations, which absorbed 30 per cent. Again, because of this concentration of women in the clerical categories, the number of women workers exceeded the number of male workers. In the professional category two occupations included the great majority of women secondary school graduates in the labour force – approximately 45 per cent were teachers and 49 per cent were graduate nurses or nurses-in-training. The teaching classes at the elementary and secondary school level were again heavily weighted with women workers and nursing was an almost exclusively feminine occupation. A comparison of average salaries in the clerical and teaching occupations indicates that, for secondary school graduates, male-female earnings differentials were less than for other combinations of occupation and schooling. For the same age categories, female earnings ranged around 60 to 70 per cent of the equivalent male average.¹² Again, it is possible only to speculate as to why, in these occupations in contrast to other occupations, salary gaps were narrower.

The availability of a large supply of well-educated women workers for clerical occupations may be a factor in depressing the level of male salaries.¹³ In teaching, most provinces have no sex differentials in their salary scales and, therefore, earnings differences may result from differences in levels of experience, differences in the extent to which women teachers work full-time or differences in the proportion occupying supervisory or senior positions in the school system. For example, in reporting weeks of employment, approximately 87 per cent of male teachers worked in 40 weeks or more in the year preceding the census, but only 77 per cent of women teachers were in this category.

Approximately 78 per cent of women workers with university degrees were in professional or technical occupations and, of these, teaching and nursing absorbed almost two thirds of graduates, and nine per cent were social welfare workers or librarians. Surprisingly, 12 per cent of women with university degrees were employed in clerical occupations, a category of employment where a

¹² Average earnings of women in clerical occupations in the current labour force working in 49 to 52 weeks in the year preceding the 1961 Census and usually working 35 hours or more were 74 per cent of those of male workers in clerical occupations with the same amount of employment.

¹³ Department of Labour data on salary rates by sex and occupations for selected clerical occupations suggest that, although salaries are higher for male office workers, differentials may be as low as 10 per cent with the lowest differentials existing in the more junior occupations. For data on wage and salary rates by occupation and locality, see the annual reports of the Department of Labour, *Wage Rates, Salaries and Hours of Labour*, Ottawa.

university degree was of little financial advantage.¹⁴ This is substantiated by the statistics in Table 4.9 on average earnings by occupation, age and level of schooling. Women teachers with university training had average earnings substantially higher than those with only secondary schooling but nurses with higher levels of education had only moderately higher earnings than those with less education.¹⁵ The managerial and professional groups of occupations were the occupations offering the highest potential earnings to labour force participants. Employment in managerial occupations was important for the male labour force with secondary school graduation or better, but for women, even those with university degrees, such employment was of negligible importance. In the professional pursuits, women were concentrated in those occupations where the potential earnings ceiling might be relatively low while the male professional labour force consisted of a very diverse range of occupations, such as engineering and other scientific pursuits, medicine and law. Although some women did train for these careers, they formed only a very minor segment of these professional occupations.

One can only speculate as to why few women train for the more highly paid occupations. The majority of women marry and, in the past, have usually left the labour force after marriage. This may have resulted in an unwillingness on the part of women students and their parents to invest in acquiring a lengthy and expensive training. The changing attitude toward the employment of married women and the expectation of many of these women that paid employment will be a continuing part of their lives may, in future, result in some shifts in the occupational composition.¹⁶

An adequate examination of male-female earnings differentials requires much more data than the census provides. Ideally, along with occupation, age and level of schooling, data on rates of pay, or alternately, annual earnings for full-year, full-time workers, are required as a minimum. Data exist for only a few of these variables in conjunction with each other so that differentials can be considered only in the context of limited homogeneity.

A comparison of average annual earnings of all wage-earners in the current labour force with average annual earnings of wage-earners working in 50 to 52

¹⁴ Bruce W. Wilkinson in *Studies in the Economics of Education* (Ottawa: Department of Labour, Economics and Research Branch, Occasional Paper No. 4, July 1965) estimates the educational requirements for the different occupational categories and the extent to which the labour force in 1961 in these occupations was under or over educated. His estimates indicate that in some categories, especially the clerical occupations, the female labour force has a higher level of schooling than the jobs require.

¹⁵ These observations are based upon an examination of unpublished data.

¹⁶ The study by Meltz, *Changes in the Occupational Composition of the Canadian Labour Force 1931-1961* concludes that there has been less change in the occupational composition of the female labour force between 1931 and 1961 than in the male labour force. The major changes in the female labour force have been an increase in percentage employed in clerical occupations and a decline in the percentage employed in service occupations. Despite the fact that the 1961 labour force would be a more highly educated one, the percentage employed in professional occupations was lower than in 1931.

weeks and normally working 35 hours per week or more shows that some narrowing of the occupational differences occurred for broad occupations when part-year workers were excluded. The averages are shown in Table 4.10. As might be expected, the greatest changes occurred in the sales, service and recreation occupations.

Table 4.10 — Average Wages and Salaries of All Wage-Earners in Current Labour Force and of All Wage-Earners Employed the Full Year, by Occupation and Sex, Year Ended May 31, 1961

Occupation	All wage-earners			Employed full year ^a		
	Average		Ratio F/M	Average		Ratio F/M
	Male	Female		Male	Female	
	\$	\$		\$	\$	
Managerial	6,673	3,207	.48	6,848	3,531	.52
Professional and technical	5,448	2,996	.55	5,909	3,531	.60
Clerical	3,409	2,340	.69	3,818	2,826	.74
Sales	3,908	1,367	.35	4,608	2,066	.45
Service and recreation	3,161	1,158	.37	3,690	1,722	.47
Transportation and communication	3,415	2,123	.62	4,006	2,617	.65
Farm workers	1,401	607	.43	2,081	1,240	.60
Craftsmen and production workers .	3,566	1,788	.50	4,170	2,295	.55
Labourers	2,157	1,449	.67	3,253	2,168	.67
Totals	3,679	1,995	.54	4,444	2,619	.59

^a Wage-earners working in 49 to 52 weeks and usually working 35 hours or more per week.

SOURCE: For all wage-earners, see DBS, 1961 Census of Canada, *Earnings, Hours and Weeks of Employment of Wage-Earners by Occupation* (Cat. No. 94-539), Table 21; all wage-earners employed full year from unpublished data.

The statistics in this table are for broad occupational categories which include occupations with widely different skill and educational requirements. The differences in occupational concentrations of men and women workers within these broad groups has already been commented upon. However, an examination of unpublished data on earnings by sex, age and schooling for specific occupations indicates that the differences evident for broad occupations were equally evident for individual occupations.

As a test of the possible effect of the internal occupational mix on broad occupational averages, female earnings in managerial and professional occupations for the non-farm labour force were standardized by the male occupational distributions. In the professional classes the unstandardized average female earnings were \$3,099 or 46.4 per cent of male earnings while standardized average earnings rose to \$3,569 or 53.4 per cent of the male averages. Standardizing in the managerial classes raised the female average from \$2,914 or 42.0 per cent of the

male average to \$3,462 or 49.9 per cent of the male average. Thus, although standardizing for internal occupational differences within occupational groups removed some of the differentials, structural differences within broad occupational groups in themselves explain to a limited degree the differences in average earnings.

In summary, age and schooling in themselves appear to be of no significance in explaining differences in levels of earnings between men and women. The data suggest that number of weeks or months worked and occupation together are much more significant in explaining the level of earnings of each sex. However, these two factors, in themselves, are likely to explain away less than half of the gap that exists.

A number of studies of determinants of earnings have stressed the importance of experience, especially among the more highly educated segments of the labour force, as a significant factor.¹⁷ Discontinuous work experience may prevent women from moving into positions of more senior responsibility and, as a result, experience may affect male earnings to a greater degree than female earnings. Discrimination may also explain some of the variations in earnings. Department of Labour data indicate that for equivalent occupations in the same labour market women invariably are paid at lower rates than men in the same occupations.¹⁸ A full explanation of differentials requires much more data than are now available.

The remaining sections of this chapter discuss in somewhat more detail other characteristics of the male earnings distribution.

4. EARNINGS OF MALE LABOUR FORCE BY OCCUPATION CHARACTERISTICS

CLASS OF WORKER

In addition to age and level of schooling, class of worker is a variable that affects the structure of male earnings. The data presented in Table 4.11 show the earnings distribution of the non-farm labour force by size of earnings and by class of worker — worked for others (including unpaid family workers) and self-employed (with or without employees) for broad occupational groups. The statistics for the agricultural labour force were restricted to persons in agricultural

¹⁷See, for example, Gideon Rosenbluth, "Salaries of Engineers and Scientists 1951", *Canadian Political Science Association, Conference on Statistics, 1960*, edited by E.F. Beach and J.C. Weldon, (University of Toronto Press, 1962). This study, which used data almost entirely restricted to male engineers and scientists, concluded that one fifth to one third of salary variance was due to experience, function, industry and region, with experience of most significance. The study suggested that other factors not examined may account for the greater part of the salary variation — size of employing firm, size of place of residence, differences in ability, market opportunities and bargaining power. See also Jacob Mincer, "Investment in Human Capital and Personal Income Distribution", *Journal of Political Economy*, August 1958.

¹⁸See Department of Labour annual reports on *Wage Rates, Salaries and Hours of Labour*.

Table 4.11 — Percentage Distribution of Current Non-farm Male Labour Force by Class of Worker,
by Employment Status and Broad Occupation, and by Size of Income from Employment,
Year Ended May 31, 1967

Class of worker, employment status and occupation	Income group								Average income	Median income
	Under \$1,000	\$1,000- 1,999	\$2,000- 2,999	\$3,000- 3,999	\$4,000- 4,999	\$5,000- 5,999	\$6,000- 9,999	\$10,000 and over	Total	
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	\$
Worked for Other —										
All occupations	8.5	9.6	14.6	22.8	19.4	11.2	11.2	2.6	100.0	3,743
Managerial	1.0	1.6	3.4	9.5	15.0	16.2	36.1	17.1	100.0	6,366
Professional and technical	3.7	4.7	5.9	12.4	15.6	16.2	33.2	8.5	100.0	5,475
Clerical	6.7	8.1	17.1	29.6	24.1	9.8	4.3	0.3	100.0	3,625
Sales	11.1	8.7	13.8	18.8	15.8	12.6	15.8	3.4	100.0	4,104
Service and recreation	10.7	11.8	19.6	24.8	18.9	7.8	5.7	0.7	100.0	3,292
Transport and communication	7.8	10.2	17.0	25.1	21.2	9.7	8.1	1.0	100.0	3,613
Farm workers	36.1	27.3	19.3	11.5	3.8	0.8	0.7	0.3	100.0	1,715
Loggers	24.5	29.8	19.0	12.0	7.4	3.3	3.4	0.6	100.0	2,205
Fishermen, trappers and hunters	36.8	25.6	16.4	8.8	6.3	3.0	2.5	0.5	100.0	1,420
Miners, quarrymen	3.8	6.3	11.9	23.2	25.6	16.3	12.3	0.7	100.0	4,178
Craftsmen and production workers	5.6	8.5	15.0	25.7	24.2	13.3	7.4	0.4	100.0	3,811
Labourers	22.2	20.7	21.9	22.9	9.7	2.0	0.7	0.2	100.0	2,301
Self-employed —										
All occupations	7.4	10.6	15.1	15.7	11.2	9.2	16.0	14.8	100.0	5,929
Managerial	3.6	7.0	13.0	15.3	13.0	11.5	20.4	16.2	100.0	6,567
Professional and technical	2.2	3.3	4.0	5.4	5.7	6.8	23.2	49.5	100.0	12,286
Clerical	6.7	10.6	12.8	17.9	13.8	13.3	18.0	6.9	100.0	4,798
Sales	6.3	9.3	13.4	13.8	11.2	10.9	20.8	14.2	100.0	5,577
Service and recreation	6.3	13.3	22.7	23.4	13.9	6.4	9.4	4.5	100.0	4,026
Transport and communication	4.9	12.7	22.9	20.8	11.6	8.7	11.9	6.5	100.0	4,363
Farm workers	20.6	16.5	23.9	15.3	11.0	5.4	5.2	2.3	100.0	2,763
Loggers	32.8	25.5	15.9	10.3	3.9	4.3	5.4	2.0	100.0	2,301
Fishermen, trappers and hunters	38.9	27.0	17.2	7.7	2.9	2.0	3.4	0.8	100.0	1,809
Miners, quarrymen	11.3	12.1	33.0	12.1	10.9	10.0	7.4	3.4	100.0	3,320
Craftsmen and production workers	8.1	14.9	21.2	22.5	13.0	8.3	8.5	3.5	100.0	3,704

occupations resident off-farm and not working as farm operators. The majority of this occupational category were farm labourers.

The self-employed constituted somewhat over 11 per cent of the non-farm labour force with earnings. Nearly one-half of these were in managerial occupations, some 10 per cent were professionals and 17 per cent were craftsmen or production workers such as painters, shoe repairmen, tailors and so forth. The remainder were dispersed through other occupations.

In most occupational groups, earnings of the self-employed were higher than earnings of persons who were in the employ of others. There were two exceptions to this — in the managerial classes the salaried labour force had higher average earnings than own account workers, and in mining occupations miners on wages reported higher earnings than the self-employed. However, the number of self-employed in mining occupations was exceedingly small. In two occupational categories, craftsmen and production workers and labourers, although average earnings differed little for both categories of workers, median earnings were lower for the self-employed.

It should be pointed out that there is considerable ambiguity in statistical data by class of worker. For legal purposes, such as income tax administration, a person is considered to be self-employed only if he is operating an unincorporated business; persons actively engaged in the operation of a privately incorporated business of which they may be majority shareholders are treated as salaried managers. Technically, then, class of worker status changes when the legal form of a business changes. This is the classification that underlies national accounts estimates of the earned income components of personal income.

There is much evidence to suggest that, in reporting on censuses and surveys, business proprietors who have incorporated their businesses are ambivalent in their views as to their status. Many appear to report themselves as self-employed while others will classify themselves as salaried managers. Census statistics of the self-employed cannot therefore be unequivocally considered as representing only self-employed persons working on a free-lance basis, or operating an unincorporated business.¹⁹

Owners of incorporated businesses who are categorized as working for others and who are majority shareholders in their own business may exercise the same degree of control over the operations of the business as persons who own unincorporated businesses. It is usual to incorporate privately owned business enterprises of substantial sizes for taxation and other reasons but incorporation of

¹⁹ The reporting of the sources of income is also affected by these inconsistencies in the classification of the proprietors of privately incorporated businesses. The problem is discussed in more detail in Appendix B. A study is in progress as to the extent of internal inconsistency between class of worker and income sources by occupation and other characteristics but results are not yet available. Some preliminary research using monthly labour force surveys data suggests that perhaps one fifth to one third of the non-farm self-employed, in fact, own incorporated businesses.

professional practices, on the other hand, is not legally permissible. Because of this classification problem, comparisons of the level of earnings of business proprietors and other classes of self-employed must be made with some caution — it is possible, for example, that business proprietors as a group earn more than self-employed professionals. However, because the statistics do not distinguish between salaried proprietors of private companies and managers in public corporations, such a comparison cannot be made.

Although average earnings of the self-employed as reported in the 1961 Census tended to be higher, greater inequality existed in their earnings distribution. While average earnings were approximately 50 per cent higher than those of employees, median earnings were only nine per cent higher. The proportion of self-employed in the lowest income brackets was equivalent to the proportion with low incomes among those working for others. However, at the upper end of the distribution, earnings of \$10,000 or more, some 15 per cent of the self-employed had earnings of this size but less than three per cent of employees attained this level of earnings.²⁰

Self-employed as a category encompasses the whole range of occupations, from the highly skilled doctor or architect with a professional practice, or the business proprietor with a construction business or a retail store, to the barber who operates without assistance or the carpenter taking on odd-job assignments. The position of self-employed carpenters would differ little from that of a wage-earner as these workers earn their income by accepting employment from others. The main distinction may be that they work for a series of employers rather than one employer.

The 1961 statistics suggest that, in many occupations, potential earnings were much greater for the self-employed than for those who opted for working on a salary basis. This was the case in professions such as law, medicine or engineering. However, skill and training were not the only prerequisites, as the self-employed person must often invest considerable capital as well in his practice or business before earnings become possible. It has already been pointed out that, in many cases, earnings, therefore, contained an element of returns to capital invested as well as returns to labour. Along with the need for capital was the risk and uncertainty involved in working on one's own account. In many instances, when confronted with the necessity of making a choice, the preference might be for the security of a guaranteed fixed annual salary rather than the hazards involved in developing a business or practice.

Not all occupations offered the prospect of a high income for the self-employed person and the decision to work as an own account might be influenced by other reasons, such as a desire for independence or the freedom of setting one's own hours or conditions of work. In some cases this might be considered more important than the assurance of a regular pay cheque. For example, approximately

²⁰ There appears to be an upward bias in the income estimates for the self-employed and the estimated percentage may be too high. See the discussion on response errors in Appendix B

17 per cent of the self-employed were craftsmen or production workers. Average and median earnings were lower than for employees; 44 per cent reported earnings of less than \$3,000, in contrast to 29 per cent of employees in this occupation group. Although in some of the crafts and production occupations on average the self-employed earned more than wage-earners in similar jobs, in few cases were these differences very large. Further, the self-employed person usually had to invest in equipment, business premises, and so forth to work on own account. Where differentials existed in favour of the self-employed, the differentials themselves may have represented relatively low returns on the capital invested and the risks involved in entrepreneurship.

Although the ranking of average earnings differed by broad occupational groups for employees and for self-employed, in general there was some similarity in the rankings.²¹ The occupations with higher wages and salaries tended to be the occupations with the highest earnings among the self-employed and those with lowest wage earnings were also low for income from self-employment.

RANKING OF SPECIFIC OCCUPATIONS

The ranking of individual occupations by size of average income from employment is closely correlated with the ranking of the occupational group in which each occupation belongs. Table 4.12 presents statistics on the individual occupations composing the two lowest deciles and the two highest deciles of occupations when occupations are ranked by size of average earnings reported. These rankings are for the non-farm labour force in total — that is, both classes of workers combined. Statistics for the third to eighth deciles are not shown.

The occupations listed in each of these four deciles represent 10 per cent of the total non-farm labour force. Within each decile the occupations are ranked by size of average earnings. The two lowest deciles comprise those occupations where average annual earnings fell below \$2,974, while the average incomes from employment of the occupations in the two top deciles were in the range of \$5,571 to \$15,083. This means that for the 60 per cent of workers in the remaining occupations, average earnings ranged from approximately \$3,000 to \$5,500. In addition, statistics are presented on median earnings, the proportion of workers with above-average schooling and the coefficient of dispersion is calculated. For purposes of this analysis above-average schooling is defined as the percentage in the occupation having attained four to five years of secondary schooling, or having some university training or a university degree. As already indicated, the median years of schooling for the male labour force in total was one year of secondary schooling; only one quarter of the male labour force had four to five years of secondary schooling or more.

²¹ For employees the ranking of occupational groups from highest to lowest earnings was as follows: managers, professionals, miners and quarrymen, sales occupations, craftsmen and production workers, transportation and communication workers, clerical occupations, service occupations, labourers, loggers, fishermen, trappers and hunters and farm workers.

The ranking of self-employed was: professionals, managers, sales occupations, clerical occupations, transportation and communication occupations, service occupations, craftsmen, farm workers, labourers, loggers and fishermen, hunters and trappers.

Table 4.12 — Specific Occupations of Non-farm Labour Force Ranked by Average Income from Employment, Lowest and Highest Deciles, Year Ended May 31, 1961

Occupation	Average income	Median income	Per cent with above-average schooling	Coefficient of dispersion ^a
	\$	\$		
Baby sitters	453	308	15.5	1.000
Newsvendors	648	312	8.5	1.003
Trappers and hunters	963	583	0.7	1.444
Attendants, recreation and amusement	1,141	725	15.3	2.073
Guides	1,586	1,377	7.6	1.015
Kitchen helpers and related workers, n.e.s.	1,602	1,585	9.5	0.993
Fish cannery, curers and packers	1,606	1,354	3.2	1.061
Farm labourers, groundskeepers and other agricultural occupations	1,695	1,453	8.9	1.240
Labourers in trade	1,814	1,563	14.9	1.430
Messengers	1,822	1,475	12.0	1.522
Fishermen	1,904	1,426	3.6	1.278
Labourers in—				
All other industries	1,908	1,697	10.6	1.239
Construction	1,947	1,910	6.6	0.957
Transportation, except railway	1,965	1,840	7.6	1.128
Teamsters	2,064	1,716	3.3	0.871
Lumbermen, including labourers in logging	2,083	1,712	3.3	1.114
Waiters and waitresses	2,148	2,174	15.8	0.718
Labourers in wood industries	2,161	2,046	7.8	1.050
Service station attendants	2,210	2,242	15.5	1.001
Labourers in—				
Textile and clothing industries	2,221	2,333	5.1	0.676
Food and beverage	2,408	2,422	8.7	0.973
Forest rangers and cruisers	2,415	2,203	16.9	1.135
Labourers in public administration and defence	2,434	2,646	6.9	0.795
Labourers in local administration	2,439	2,649	5.4	0.823

Winders, reels	2,470	2,622	4.1	0.446
Nurses-in-training	2,527	2,590	71.4	0.536
Shoemakers and repairers, factory, n.e.s.	2,531	2,578	4.2	0.609
Shoemakers and repairers, not in factory, n.e.s.	2,540	2,405	5.1	0.793
Porters, baggage and pullmen	2,600	2,689	18.0	0.718
Elevator tenders, building	2,620	2,737	8.5	0.449
Janitors and cleaners, building	2,621	2,779	8.6	0.650
Service workers, n.e.s.	2,636	3,062	20.0	0.754
Cooks	2,659	2,668	11.3	0.636
Bottlers, wrappers, labellers	2,666	2,972	12.3	0.827
Warehousemen and freight handlers, n.e.s.	2,675	2,849	10.6	0.819
Labourers in:				
Manufacturing	2,683	2,820	8.4	0.807
Communication and storage	2,686	3,026	12.0	0.740
Electric power, gas and water utilities	2,694	2,800	10.6	0.873
Religious workers, n.o.r.	2,695	2,388	44.2	0.830
Dressmakers and seamstresses, n.i.f.	2,713	2,929	10.8	0.602
Knitters	2,724	2,789	9.3	0.480
Launderers and dry cleaners	2,745	2,748	9.8	0.578
Bartenders	2,762	2,885	14.6	0.488
Other leather product makers	2,767	2,994	6.4	0.475
Sawyers	2,779	2,658	5.6	0.889
Carders, combers and other fibre preparers	2,786	2,806	5.9	0.322
Spinners and twistors	2,788	2,816	5.2	0.417
Taxi drivers and chauffeurs	2,792	2,670	10.9	0.635
Fruit and vegetable canners and packers	2,813	2,943	10.9	0.823
Sewers and sewing machine operators, n.e.s.	2,816	2,890	7.1	0.550
Leather cutters	2,820	2,983	5.6	0.448
Nursing assistants and aides	2,821	2,971	19.7	0.408
Other textile occupations	2,845	2,919	6.9	0.421
Woodworking occupations, n.e.s.	2,851	3,043	9.4	0.621
Hawkers and pedlars	2,854	2,362	10.8	0.999
Apparel and related product makers, n.e.s.	2,867	2,921	7.1	0.558
Construction workers, n.e.s.	2,934	2,912	7.9	0.927

Table 4.12 — Specific Occupations of Non-farm Labour Force Ranked by Average Income from Employment, Lowest and Highest Deciles, Year Ended May 31, 1961 — continued

Occupation	Average income	Median income	Per cent with above-average schooling	Coefficient of dispersion ^a
	\$	\$		
Painters, paperhangers and glaziers (construction and maintenance)	2,943	2,995	10.7	0.725
Labourers in:				
Transportation equipment industries	2,957	3,267	6.3	0.499
Other manufacturing industries	2,963	2,702	8.5	0.762
Prospectors	2,973	2,374	29.0	1.170
Owners and managers in retail trade	5,571	4,459	30.1	0.834
Commercial travellers	5,576	5,260	48.6	0.665
Insurance salesmen and agents	5,674	5,270	55.9	0.703
Credit managers	5,716	5,520	68.3	0.569
Professional occupations, n.e.s.	5,723	5,589	68.4	0.636
Foremen, transportation equipment	5,776	5,836	27.7	0.492
Foremen, paper and allied industries	5,778	5,648	19.6	0.519
Photoengravers	5,794	6,332	29.4	0.666
Foremen, mine, quarry and oil well	5,832	5,687	18.4	0.564
Purchasing agents and buyers	5,863	5,417	53.9	0.613
School teachers	5,885	5,695	95.9	0.706
Other health professionals	5,935	4,970	68.1	0.817
Locomotive engineers	6,088	6,718	15.1	0.465
Funeral directors and embalmers	6,155	4,484	46.8	0.858
Owners and managers in all other industries	6,181	5,085	36.2	0.940
Office managers	6,188	5,874	63.6	0.956
Foremen, primary metal industries	6,214	6,423	22.6	0.484
Owners and managers in federal administration	6,250	5,628	64.6	0.638
Authors, editors and journalists	6,263	5,881	77.3	0.765
Owners and managers in—				
Miscellaneous services	6,267	5,687	45.5	0.784
Wood industries	6,379	5,154	30.3	1.038
Computer, collection and brokerage	6,382	5,569	67.7	0.842

Inspectors and foremen, communications	6,389	6,511	49.0	0.479
Chemists	6,442	6,441	91.1	0.597
Owners and managers in provincial administration	6,567	5,882	63.3	0.750
Actuaries and statisticians	6,597	6,042	81.9	0.618
Biological scientists	6,627	6,916	96.1	0.566
Accountants and auditors	6,961	6,638	83.5	0.584
Physical scientists, n.e.s.	7,001	7,117	93.4	0.591
Owners and managers in—				
Health and welfare services	7,012	6,086	64.3	0.796
Construction industries	7,089	5,710	29.9	0.918
Pharmacists	7,127	6,718	95.9	0.632
Owners and managers in forestry, logging	7,167	5,624	22.8	1.044
Economists	7,271	7,098	89.8	0.570
Owners and managers in furniture and fixture industries	7,321	5,958	42.1	0.868
Electrical engineers	7,476	7,674	93.8	0.459
Industrial engineers	7,498	7,368	81.6	0.485
Mechanical engineers	7,517	7,496	89.1	0.473
Owners and managers in—				
Transportation, communication & other utilities	7,541	6,513	42.3	0.683
Education and related services	7,598	6,918	84.1	0.765
Professional engineers, n.e.s.	7,629	7,615	92.3	0.475
Civil engineers	7,634	7,655	95.8	0.476
Geologists	7,699	7,936	98.1	0.476
Owners and managers in—				
Food and beverage	7,770	5,928	41.0	0.860
Wholesale trade	7,798	6,207	46.2	0.874
Sales managers	7,890	7,505	61.3	0.605
Chemical engineers	8,043	7,803	97.5	0.475
Owners and managers in—				
Miscellaneous manufacturing	8,093	7,098	54.4	0.730
Non-metallic mineral products	8,258	6,938	47.6	0.779
Osteopaths and chiropractors	8,285	6,567	94.7	1.117
Mining engineers	8,487	8,127	91.4	0.433
Owners and managers in rubber industries	8,515	7,608	65.6	0.589
Veterinarians	8,577	7,996	95.9	0.480

Table 4.12 — Specific Occupations of Non-farm Labour Force Ranked by Average Income from Employment, Lowest and Highest Deciles, Year Ended May 31, 1961 — concluded

Occupation	Average income	Median income	Per cent with above-average schooling	Coefficient of dispersion ^a
	\$	\$		
Owners and managers in—				
Metal fabricating industries	8,653	7,543	50.6	0.715
Clothing industries	8,689	7,013	43.9	0.849
Professors and college principals	8,806	8,530	98.8	0.664
Architects	8,880	7,850	95.6	0.580
Owners and managers in finance, insurance, real estate	8,908	7,750	67.9	0.651
Air pilots, navigators and flight engineers	9,038	8,549	71.6	0.783
Optometrists	9,150	8,407	93.4	0.793
Owners and managers in—				
Printing, publishing and allied industries	9,195	7,775	55.7	0.806
Transportation equipment	9,411	8,132	59.8	0.767
Leather industries	9,464	7,729	51.7	1.038
Petroleum and coal products	9,516	8,700	59.9	0.738
Machinery industries	9,564	8,404	63.6	0.724
Knitting mills	9,760	8,050	53.6	0.881
Electrical products industries	9,914	8,251	69.2	0.753
Service to business management	10,080	8,454	77.0	0.892
Textile industries	10,178	8,130	59.8	0.922
Chemical and chemical products	10,303	8,448	72.2	0.836
Mines, quarries and oil wells	10,467	8,580	60.4	0.821
Paper and allied industries	10,547	8,993	62.4	0.753
Lawyers and notaries	11,310	9,416	98.9	0.921
Judges and magistrates	11,555	11,085	90.5	1.368
Dentists	12,690	11,724	99.1	0.818
Physicians and surgeons	15,083	13,019	99.3	1.034

^a $\frac{Q_3 - Q_1}{\text{Median}}$

SOURCE: Earnings rankings based on DBS, 1961 Census of Canada, *Incomes of Individuals* (Cat. No. 98-502), Table B4. Data on educational attainment from DBS, 1961 Census of Canada, *Occupations by Sex Showing Age, Marital Status and Schooling* (Cat. No. 94-509), Table 17.

Inequality of earnings exists not only between occupations but also within occupations. The average or arithmetic mean, the median and the coefficient of dispersion are indicators of inequality. In a normal distribution the average or arithmetic mean and the median will tend to coincide; the greater the difference between the mean and median the greater the skewness of earnings within the occupation and the more unequal the distribution. The median is that income in the distribution which divides the distribution in half; that is, one half of workers earn less than this amount and one half earn more.

The coefficient of dispersion is calculated by dividing the inter-quartile range ($Q_3 - Q_1$) by the median. The first quartile is the point below which the lowest one-quarter of earners fall and the third quartile is the limit above which the highest quarter of earners are found. For example, if the median is \$5,000, the first quartile \$4,000 and the third quartile \$6,000, the coefficient of dispersion is .400 or \$2,000 divided by \$5,000. The greater the coefficient of dispersion, the greater the gap between the lower and higher incomes and the median income in a size distribution of income for an occupation. A high coefficient of dispersion, then, is another indicator of inequality of earnings within an occupation.

It has already been noted that the dispersion of earnings was greater among the self-employed than among those employed by others. As Table 4.11 indicates, in many of the occupational categories, the differentials between average and median earnings for employees were relatively small. There were no occupational groups in which there was any close agreement between median and average earnings reported by the self-employed. For two occupational categories of employees the average and median incomes were almost identical, while for another eight out of the 12 categories the median was at least 90 per cent of the mean. For the self-employed all medians were less than 90 per cent of the mean.

It is also evident from Table 4.12 that much greater inequality of earnings characterized those occupations comprising the lowest and highest deciles of the occupational distribution than the majority of occupations which accounted for the middle of the range. There was less spread in average earnings between the third and eighth deciles than between the first and second and between the ninth and tenth. As might be expected, the specific occupations that were found in the lowest and highest deciles largely came from those broad occupational groups that showed the lowest or highest earnings. In the lowest decile one half of the occupations listed was either categories of labourers or of service occupations, such as waiters, guides, attendants or amusement centre attendants. The lowest decile consisted basically of unskilled occupations with very low average annual earnings and, as the coefficient of dispersion indicates, very unequal earnings. For this group, employment was likely to be irregular and the degree of unemployment during the year well above average. Only 51 per cent of labourers worked in a minimum of 40 weeks and only 75 per cent of the service workers, exclusive of the protective service occupations, had 40 or more weeks of employment.

The lower paid production process occupations such as bottlers and wrappers, leather cutters and shoemakers accounted for one half of the occupations in the second decile. The remainder of this category consisted largely of labourers and service occupations such as janitors, porters and elevator operators. Annual earnings were characterized by much less dispersion than was evident in the lowest decile. Some of the occupations in this category required a certain degree of skill or training.

Although unskilled occupations dominated the two lowest deciles, the two top deciles consisted almost exclusively of professionals and the managerial categories. In fact, the top or tenth decile included only two occupations that were not professional or managerial — airline pilots, and inspectors and foremen in communication. Over half of the occupations in the ninth decile consisted of professional or managerial occupations; in addition, this decile included a number of other white collar occupations in the sales category such as insurance salesmen, commercial travellers, purchasing agents and security salesmen and brokers. Only five of the 22 occupations consisted of skilled craftsmen in blue collar occupations — mine foremen and foremen in some of the manufacturing industries. When specific occupations are ranked by size of average earnings, nearly all of the managerial occupations ranked in the two top deciles and also somewhat over half of professional occupations.

As the table indicates, the level of schooling for the majority of occupations in these upper deciles was high although the extent of above-average schooling tended to be higher among those in the professional occupations than among those in the managerial classes. In three quarters of the occupations in the upper deciles more than half of the labour force had above-average schooling. The statistics suggest that a good education might be as relevant to higher earnings in entrepreneurial activities as in the professions.²²

It should also be noted that earnings in the upper deciles in many instances showed substantial dispersion (.800 or more) and, in this respect, tended to resemble the lowest deciles rather than the intermediate ones. Dispersion was greatest in those occupations having a significant proportion of self-employed — the various categories of owners and managers, lawyers and doctors. Nearly one half of owners and managers reported themselves as self-employed. Occupations which consisted largely of persons on salary, for example, economists, engineers and scientific occupations were characterized by more normal distributions and less divergence of earnings.

Market forces usually tended to put a floor under the earnings of highly trained salaried professional personnel who might also look forward to receiving increments in earnings with developing experience. The self-employed had no

²² It is probable that many persons in managerial occupations may have a professional training and that with advancement the nature of their responsibilities may have changed, as, for example, an engineer who may become a senior corporation executive.

guaranteed minima and earnings were subject to fluctuations for many reasons, such as changing economic conditions.

5. AGE-EARNINGS PROFILES BY OCCUPATION AND LEVEL OF SCHOOLING

The relationship between age, occupation and earnings provides some indication of the degree to which experience acquired on the job during a working career may be reflected in higher levels of earnings. In some occupations, salary or wage scales are tied to the number of years of experience in that occupation and, thus, the longer the working span the higher the level of earnings.

Table 4.13 presents data on average earnings by age for selected occupations representative of occupations with low, medium and high average income from employment — included are some of the unskilled occupations, blue and white collar occupations, and professional and managerial occupations. In all occupations, earnings of those aged 15 to 24 were substantially lower than earnings of the age groups 25 and over. The youngest age group would include new entrants into the labour force and others such as students who might have only worked part of the year. The youngest age groups also had higher than average unemployment rates.²³

Chart 4.1 shows the average earnings by age group for selected broad occupations. It is not surprising that, for workers between 25 and 64 who were engaged in unskilled occupations, such as labourers, the earnings curve tend to be rather flat across the different age groups. What is perhaps surprising is that the same relative levelness of earnings seems to be characteristic of many of the semi-skilled and skilled occupations and only in the managerial and professional occupations was there usually a consistent picture of rising earnings with age. A number of crafts occupations were exceptions — for example, railroad operators, a category which includes locomotive engineers, firemen and brakemen, showed rising earnings from the youngest to the oldest age group. These were occupations in which seniority was a very important factor in the movement from lower paid to higher paid occupations — from brakeman to conductor or from fireman to locomotive engineer. In a few of the skilled occupations such as the printing and bookbinding trade, and the occupations in the steel and metal manufacturing industries and the rubber industry, age-earnings differentials were more evident. Thus, although earnings were higher in the semi-skilled and skilled occupations than in the unskilled, the earnings experiences of these groups were much alike — that once workers were established in an occupation, earnings appeared to level out

²³ In the year preceding the 1961 Census the male labour force under 25 years of age had the highest unemployment rates among the different age groups. For a discussion of unemployment rates by age groups see Sylvia Ostry, "Labour Force and Employment Patterns", *The Economic Status of the Aging* by Sylvia Ostry and Jenny Podoluk, DBS, 1965, pp. 56-62.

and to be maintained around a constant level across all age groups. Earnings might rise only with general movements in wage levels and not through increasing experience.

Table 4.13 — Average Income of Males from Employment, by Age and Selected Occupation, Year Ended May 31, 1961

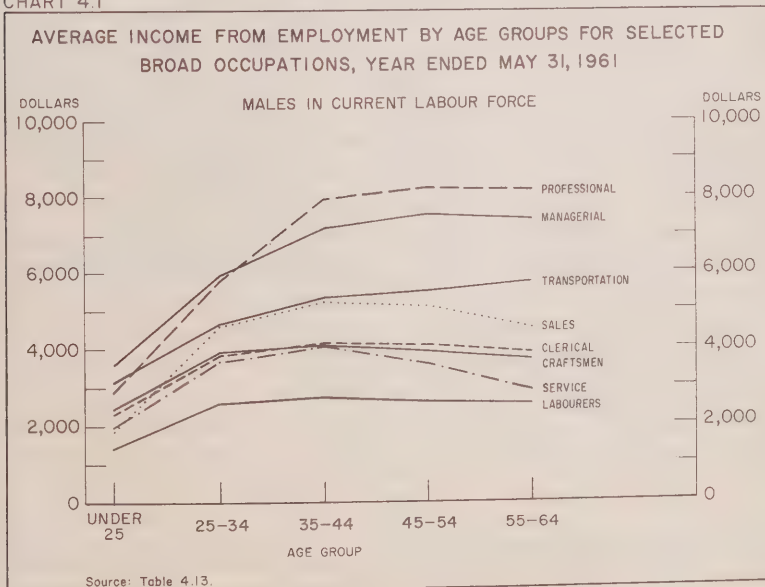
Occupation	Age				
	Under 25	25-34	35-44	45-54	55-64
	\$	\$	\$	\$	\$
Managerial occupations (total)	3,631	5,973	7,203	7,562	7,449
Owners and managers —					
Manufacturing	3,818	6,711	8,859	9,457	9,804
Construction	4,176	6,762	7,575	7,379	6,427
Wholesale Trade	4,413	6,293	7,839	8,756	8,269
Retail trade	3,586	5,243	6,037	5,907	5,501
Finance and insurance	3,769	6,939	9,158	9,759	10,406
Community, business and personal service	2,849	5,289	6,390	6,433	6,248
Public administration	2,790	5,200	6,005	6,661	6,804
Professionals (total)	2,919	5,800	7,980	8,251	8,171
Engineers	3,432	6,688	8,475	9,038	9,280
Physical scientists	2,863	6,366	8,384	8,749	7,978
Biologists and agricultural scientists	2,300	6,213	7,669	7,434	6,555
Professors and college principals	3,172	6,578	9,402	11,108	10,881
School teachers	3,249	5,237	6,767	7,601	7,790
Doctors	—	9,319	18,246	19,626	15,433
Dentists	4,214	13,714	14,727	14,284	10,849
Lawyers	1,830	7,856	13,187	13,597	15,636
Architects	2,372	6,499	10,218	11,190	14,300
Actuaries, statisticians and economists	3,351	6,045	7,577	8,272	9,557
Accountants and auditors	3,423	6,095	7,591	7,976	8,334
Clerical	2,322	3,894	4,187	4,109	3,932
Sales	1,880	4,634	5,272	5,114	4,551
Service occupations (total)	1,998	3,712	4,128	3,620	2,952
Waiters and cooks	1,473	2,550	2,853	2,842	2,653
Other service occupations (barbers, janitors, guides, etc.)	1,461	2,992	3,267	3,148	2,832
Transport and communication operators, railroad	3,155	4,708	5,355	5,524	5,771
Loggers and related workers	1,415	2,502	2,687	2,482	2,108
Fishermen, trappers and hunters	1,214	1,947	2,197	2,025	1,828
Craftsmen, production process and related workers (total)	2,440	3,914	4,128	3,989	3,739
Tire builders, vulcanizers and other rubber workers	2,510	3,684	4,090	4,034	3,943
Leather cutters, lasters, sewers and other leather workers	1,859	2,988	3,011	2,932	2,630
Spinners, weavers, knitters	2,139	3,062	3,158	3,215	3,280

Table 4.13 — Average Income of Males from Employment, by Age and Selected Occupation, Year Ended May 31, 1961 — concluded

Occupation	Age				
	Under 25	25-34	35-44	45-54	55-65
Tailors, furriers, upholsterers	\$ 2,006	\$ 3,267	\$ 3,571	\$ 3,522	\$ 3,289
Paper makers, still operators, chemical and related workers	3,121	4,589	4,661	4,675	4,649
Printers, bookbinders and related workers	2,813	4,959	5,287	5,407	5,059
Furnacemen, moulders, blacksmiths and related metal workers	2,844	4,094	4,452	4,396	4,111
Jewellers, watchmakers and engravers .	2,193	4,103	4,128	3,948	3,370
Machinists, plumbers, sheet metal workers	2,759	4,067	4,320	4,211	4,053
Mechanics and repairmen	2,540	4,022	4,187	3,991	3,766
Electricians and related electrical workers	2,934	4,486	4,739	4,556	4,440
Painters, paperhangers and glaziers . .	2,139	3,133	3,283	3,346	2,942
Bricklayers, plasterers and construction workers, n.e.s.	2,445	3,697	3,921	3,750	3,458
Labourers	1,480	2,634	2,781	2,652	2,561

SOURCE: For the majority of occupations, statistics for the age groups 25 - 64 were published in DBS, 1961 Census of Canada, *Incomes of Individuals* (Cat. No. 98-502), Table B 6. The remainder of the table consists of unpublished data.

CHART 4.1



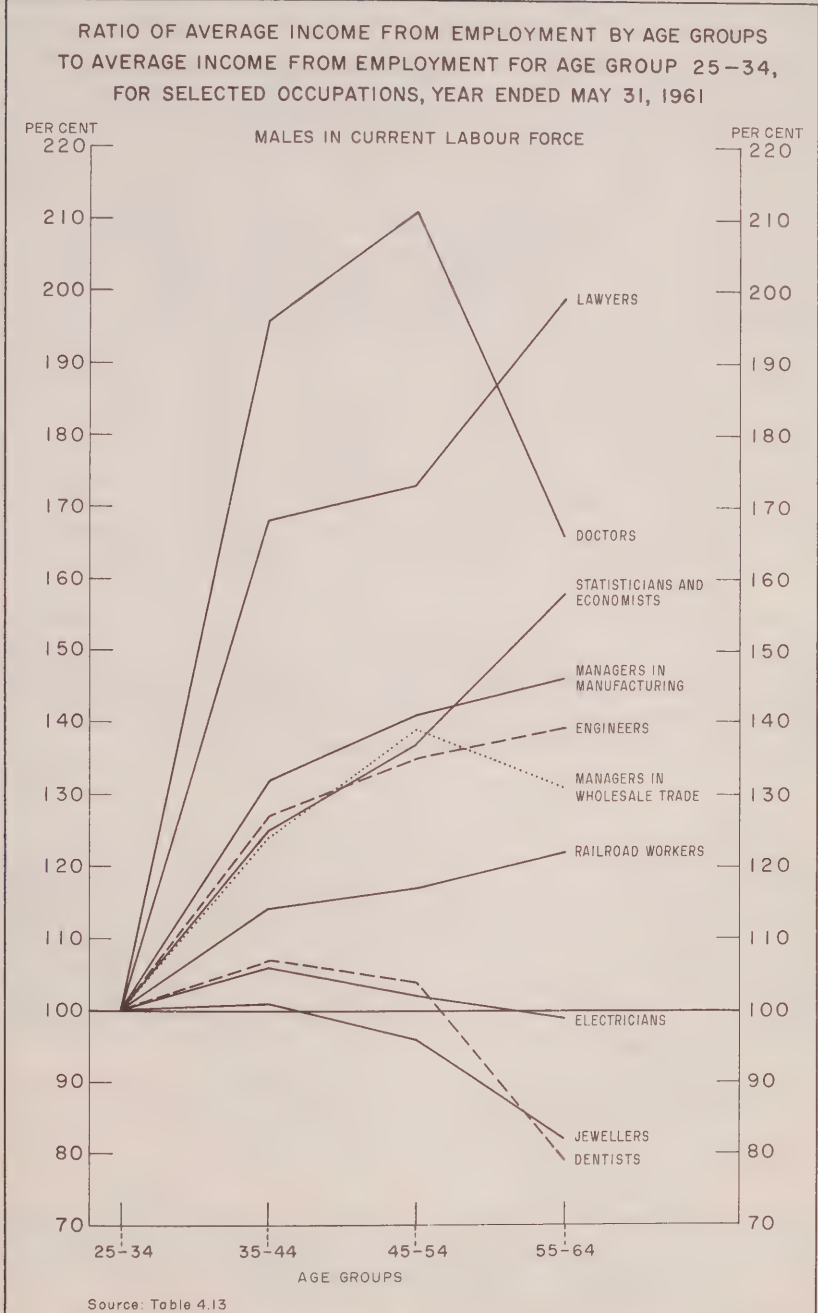
One qualification should perhaps be made to the observation that for a substantial proportion of occupations the earnings curve tended to be flat between the ages of 25 and 55, and that workers aged 55 to 64 usually had lower average earnings than the younger age groups. Persons in this age group were likely to experience more unemployment and perhaps might engage in more part-time work. However, for the majority of the occupations shown, where average earnings were lower among the older age groups, the differences were usually less than 10 per cent of the earnings of the preceding age group. The gap between earnings of those on the verge of retirement and the younger members of the occupational category were rarely very large. It should be noted too that, although earnings of older workers might be lower relative to persons in the younger age groups, they were not necessarily lower relative to income earned by the individual in his previous years of employment. Differences might mean that when current earnings were rising the oldest workers lost ground relative to younger workers but not that they themselves experienced declines in their own earnings.²⁴

Chart 4.2 shows the earnings distribution by age group relative to the age group 25 to 34 for a few selected professional and managerial occupations such as lawyers and managers in manufacturing, and several other occupations such as electricians and labourers.

As already stated, the age-earnings profiles of the managerial and professional occupations did not conform to those of other occupational groups. Earnings usually peaked later, either at the ages of 45 to 54 or the 55 to 64 age groups, and the differentials between the earnings of those in the early stages of their careers and those in the middle or older age groups were greater than in the unskilled or skilled occupations. The latter attained their highest earnings levels in younger age groups. Among the occupations where average earnings did not reach their maximum until the age group 55 to 64 were the managerial classes in manufacturing, finance and insurance, and public administration and professionals such as engineers, school teachers, lawyers, architects, statisticians and economists and accountants. It should be noted that one professional occupation — dentistry, had an income pattern that differed markedly from that of other professional occupations. Dentists appeared to reach peak earnings very rapidly after entry into the profession. In the age group 25 to 34 the average earnings of dentists was the highest of any occupation and was substantially above those of doctors or lawyers. Although earnings were still higher for the age group 35 to 44, they declined beyond this and in the oldest age groups earnings were lower than in a number of other professional occupations such as law, medicine and architecture. Professional occupations were more likely to show steadily rising earnings until the 55 to 64

²⁴ The importance of the distinction between time series profiles of age-earnings and cross-sectional profiles is discussed by Gary S. Becker, in *Human Capital*, National Bureau of Economic Research (Columbia University Press, 1964) pp. 138-144.

CHART 4.2



age groups while for the managerial classes the peak in average earnings seemed to occur rather in the 45 to 54 age group.²⁵

Implicitly, differences in the career earnings distribution may be a reflection of variations in the degrees of education and training embodied in the labour force in those occupations. One analysis of age-earnings differentials concludes that "inter-occupational differentials are . . . a function of differences in training".²⁶ It suggests that training is not simply a matter of the formal training acquired before entry into an occupation but also on-the-job training or experience derived from working which in turn is a function of age, and that "clearly, as more skill and experience are acquired with passage of time, earnings rise".²⁷ However, the likelihood that experience or training acquired while working may influence earnings is greater, the greater the amount of the initial formal training acquired. The tentative findings suggested that:

- (a) growth in productive performance is more pronounced and prolonged in jobs of higher levels of skill and complexity;
- (b) growth is less pronounced and decline sets in earlier in manual work than in other pursuits; and
- (c) the more capable and the more educated individuals tend to grow faster and longer than others in the performance of the same task".²⁸

The conclusion that the amount of education of the individual is the most important explanation of earnings differentials by occupations is now generally accepted.²⁹ Although differences in ability may partially explain differences in earnings, this factor may be a more important explanation of intra-occupational differences in earnings than of inter-occupational differentials.

²⁵ Because census statistics show the actual average earnings reported by age groups, rather than salary received, lower earnings among those aged 55 to 64 may reflect lower labour participation during the year rather than lower salaries as such. Studies by the Department of Labour on annual professional income of engineers and scientists working full-time show that when these professionals are classified by years since university graduation median earnings are highest for those with 36 to 40 years from graduation and that the greater the number of years since graduation the higher the median salaries. For data, see, for example: *Engineering and Scientific Manpower Resources in Canada*, Department of Labour, Economics and Research Branch, Bull. No. 10, June 1961, or *Employment and Earnings in the Scientific and Technical Professions, 1958-1961*, Department of Labour, Economics and Research Branch, Report No. 12, September, 1962.

²⁶ Jacob Mincer, "Investment in Human Capital and Personal Income Distribution", *Journal of Political Economy*, August 1958, p. 301.

²⁷ *Ibid.*, p. 287.

²⁸ *Ibid.*, p. 287.

²⁹ Aside from Mincer, "Investment in Human Capital and Personal Income Distribution" among other studies on the significance of education to earnings are those by Morgan, David, Cohen and Brazer, *Income and Welfare in the United States*, McGraw-Hill, 1962; Gary Becker, *Human Capital*, National Bureau of Economic Research, Columbia University Press, New York and London, 1964. For a discussion of the importance of education to the economic and bureaucratic élite in Canada, see John Porter, *The Vertical Mosaic*, University of Toronto Press, Toronto, 1965.

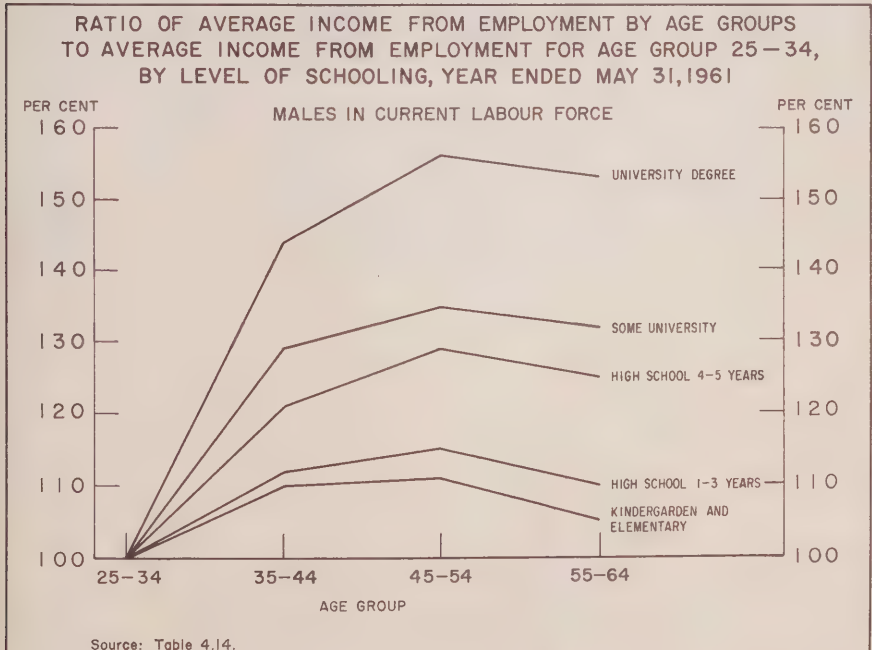
Statistics on the relationship between earnings, age and the level of schooling appear to support the conclusions cited above. Not only were absolute earnings higher the greater the amount of schooling, but the distribution of earnings by age indicated that the higher the level of schooling the greater the earnings differentials between the older and younger age groups in the labour force. The following table summarizes average earnings of the current labour force by age and level of schooling.

Table 4.14 – Average Income from Employment of Males in the Non-farm Labour Force, by Age and Level of Schooling, Year Ended May 31, 1961

Age	Elementary only	High school 1-3 yrs.	High school 4-5 yrs.	Some university	University degree
	\$	\$	\$	\$	\$
15-24	1,912	2,206	2,496	1,868	3,078
25-34	3,311	4,147	4,760	5,108	6,909
35-44	3,653	4,629	5,779	6,608	9,966
45-54	3,648	4,756	6,130	6,882	10,821
55-64	3,480	4,588	5,944	6,731	10,609

SOURCE: DBS, 1961 Census of Canada, *Incomes of Individuals* (Cat. No. 98-502), Table B 6.

CHART 4.3



The ratio of average income from employment for the age groups 35 to 64 to average income from employment of those aged 25 to 34 by the above levels of schooling is plotted in Chart 4.3. The relationships of the earnings of the 15 to 24 age group are not shown but for all, except those with some university training, the average earnings were between 50 and 60 per cent of earnings for those aged 25 to 34. The low average earnings of those aged 15 to 24 with some university training are probably due to the inclusion of substantial numbers of university students who would work only during holiday periods. The chart illustrates, quite strikingly that, as one moves from lower to higher levels of schooling, at each level expectations as to probable lifetime earnings change. Consistently, the higher the level of schooling, the greater the differential between the earnings of those between 35 and 64 and those aged 15 to 34 with equivalent levels of schooling. The relationship between schooling, occupation and lifetime earnings is be explored further in the next chapter.

As Table 4.12 indicates, occupations in the lowest deciles had a very small proportion of workers with above-average levels of schooling while occupations in the highest deciles consisted primarily of occupations with a very high degree of education. Average earnings by age and occupation might therefore be simply indirect reflections of the average level of education of each occupation.

Table 4.A.1. — Average Income from Employment in Current Non-farm Labour Force, by Level of Schooling and by Broad Occupation, Sex and Age Group, Year Ended May 31, 1961 — continued

Occupation and age group	Level of schooling							
	Elementary		Secondary 1 — 3 years		Secondary 4 — 5 years		Some university	
	Number	Average Income	Number	Average Income	Number	Average Income	Number	Average Income
		\$		\$		\$		\$
Males—continued								
Service and recreation—								
15 — 24	13,647	1,737	21,380	2,081	8,341	2,411	3,119	1,416
25 — 34	28,098	2,974	35,959	3,891	13,574	4,294	2,418	4,765
35 — 44	28,599	3,204	29,144	4,216	11,794	5,155	2,409	6,346
45 — 54	31,237	3,057	17,065	3,863	6,555	4,792	1,322	5,431
55 — 64	31,458	2,804	9,185	3,239	3,310	3,282	660	3,842
Transport and communication—								
15 — 24	19,036	2,021	25,203	2,172	6,156	2,350	1,402	1,551
25 — 34	52,192	3,382	40,763	3,945	10,622	4,422	1,447	4,898
35 — 44	44,665	3,689	31,922	4,381	9,128	5,199	1,213	6,148
45 — 54	32,116	3,626	18,352	4,481	4,970	4,897	652	5,062
55 — 64	17,812	3,821	6,573	4,506	2,152	5,209	350	4,931
Farm workers—								
15 — 24	7,563	967	6,354	994	1,581	1,144	801	792
25 — 34	7,687	1,792	2,787	2,545	841	2,714	—	—
35 — 44	6,244	2,053	1,825	2,640	526	2,944	—	—
45 — 54	6,425	1,913	1,672	2,466	412	2,587	—	—
55 — 64	6,315	1,691	916	2,270	285	2,605	—	—
Loggers and related workers—								
15 — 24	9,775	1,273	3,533	1,749	711	1,814	334	1,297
25 — 34	12,000	2,255	3,027	3,043	717	3,891	—	—
35 — 44	9,295	2,360	1,771	3,730	440	4,502	—	—
45 — 54	7,213	2,282	982	3,389	265	3,807	—	—
55 — 64	4,080	1,985	459	2,996	—	—	—	—
Fishermen, trappers and hunters—								
15 — 24	3,345	1,125	1,601	1,318	—	—	—	—
25 — 34	4,721	1,673	1,312	2,616	—	—	—	—
35 — 44	5,209	1,928	1,154	3,194	—	—	—	—
45 — 54	4,890	1,841	849	2,885	—	—	—	—
55 — 64	3,118	1,751	352	2,051	—	—	—	—

Miners, quarrymen, and related workers —	15 — 24	3,127	2,945	3,389	3,265	857	3,269	500	1,473	—	—
	25 — 34	9,820	4,149	5,321	4,649	1,357	4,986	—	—	—	—
	35 — 44	9,809	3,875	3,875	4,750	989	5,228	—	—	—	—
	45 — 54	6,926	4,068	2,590	4,881	531	5,143	—	—	—	—
	55 — 64	4,191	3,665	790	4,120	285	4,484	—	—	—	—
Craftsmen, production process, and related workers —	15 — 24	66,114	2,242	80,818	2,552	26,911	2,740	5,154	1,691	524	2,112
	25 — 34	158,954	3,521	132,960	4,155	46,548	4,482	5,139	4,359	1,376	5,210
	35 — 44	168,325	3,761	112,992	4,403	38,000	4,779	4,987	4,926	1,372	5,685
	45 — 54	150,163	3,712	74,316	4,286	24,089	4,658	3,547	4,620	993	5,138
	55 — 64	99,629	3,567	29,430	4,064	9,271	4,411	1,482	4,297	526	4,800
Labourers, n.e.s. —	15 — 24	31,703	1,523	29,540	1,532	9,850	1,423	4,662	1,012	272	1,132
	25 — 34	40,505	2,468	14,430	3,006	3,059	3,169	589	2,192	—	—
	35 — 44	37,139	2,643	10,019	3,187	1,965	3,313	278	2,817	—	—
	45 — 54	32,228	2,553	6,286	2,996	1,184	3,307	—	—	—	—
	55 — 64	23,726	2,517	3,049	2,783	689	2,866	—	—	—	—
Occupation not stated —	15 — 24	2,649	2,101	3,553	2,441	2,063	2,584	627	2,002	—	—
	25 — 34	4,275	2,991	5,897	3,619	5,769	3,817	1,066	3,881	580	6,618
	35 — 44	4,794	3,272	6,299	3,869	3,142	4,368	644	4,839	521	8,712
	45 — 54	5,019	3,440	2,875	4,121	1,564	4,497	—	—	425	9,488
	55 — 64	3,545	3,246	1,576	3,581	544	4,801	—	—	—	—

Table 4.A.1—Average Income from Employment in Current Non-farm Labour Force, by Level of Schooling and by Broad Occupation, Sex and Age Group, Year Ended May 31, 1961 — concluded

Occupation and age group	Level of schooling									
	Elementary		Secondary 1-3 years		Secondary 4-5 years		Some university		University degree	
	Number	Average income \$	Number	Average income \$	Number	Average income \$	Number	Average income \$	Number	Average income \$
Females										
All occupations —										
15-24	86,505	1,221	187,712	1,570	134,505	2,013	22,404	1,930	7,310	2,687
25-34	73,397	1,628	114,273	2,018	86,995	2,614	15,169	3,116	10,403	3,886
35-44	88,256	1,616	112,499	2,008	79,289	2,574	13,040	3,330	8,708	4,417
45-54	83,594	1,656	86,349	2,122	56,628	2,791	12,054	3,682	8,519	4,866
55-64	50,973	1,612	35,167	2,203	22,547	2,920	5,480	3,812	3,784	5,055
Managerial —										
15-24	—	—	592	2,371	405	2,457	—	—	—	—
25-34	1,067	1,886	2,354	2,298	1,722	3,081	302	3,313	—	—
35-44	3,057	2,072	4,777	2,754	3,706	3,747	619	4,023	401	5,908
45-54	3,820	2,324	5,160	2,859	3,492	3,811	601	4,219	369	5,811
55-64	2,582	2,094	2,468	2,750	1,497	3,699	308	5,685	—	—
Professional and technical —										
15-24	1,097	1,952	7,357	1,825	30,319	2,315	11,974	2,525	5,631	2,954
25-34	1,137	2,440	5,488	2,382	22,654	2,873	9,706	3,351	8,364	4,083
35-44	1,437	2,327	5,327	2,374	15,069	2,908	7,327	3,756	6,495	4,748
45-54	1,526	2,560	6,803	2,648	14,354	3,369	7,516	4,157	6,474	5,300
55-64	1,118	2,618	3,501	2,713	7,203	3,646	3,242	4,392	2,851	5,726
Clerical —										
15-24	8,780	1,809	84,872	1,982	79,247	2,134	6,460	1,459	1,150	1,789
25-34	8,244	2,178	50,122	2,405	46,113	2,687	3,568	2,694	1,322	2,839
35-44	9,765	2,124	41,559	2,385	40,512	2,687	3,565	2,824	1,217	2,851
45-54	8,458	2,252	28,709	2,517	24,257	2,832	2,761	2,913	1,147	2,910
55-64	5,105	2,343	11,918	2,703	8,160	2,903	1,189	3,016	497	2,793
Sales —										
15-24	5,870	1,136	19,567	938	7,373	849	1,071	633	—	—
25-34	4,856	1,378	10,578	1,339	3,639	1,633	316	2,198	—	—
35-44	9,259	1,410	18,234	1,438	6,709	1,592	403	1,911	—	—
45-54	9,169	1,475	13,906	1,555	5,488	1,781	436	1,952	—	—
55-64	4,591	1,624	4,266	1,665	1,683	1,852	—	—	—	—

Service and recreation — 15 — 24	33,795	884	41,084	926	9,199	1,114	1,856	777
	25,755	1,241	19,995	1,428	5,906	1,722	531	2,322
	33,726	1,235	22,734	1,420	6,603	1,641	566	2,010
	35,580	1,268	18,123	1,465	5,060	1,724	435	2,149
	24,105	1,194	8,204	1,439	2,550	1,522	335	1,552
Transport and communication —								
15 — 24	1,101	1,558	8,253	1,880	3,284	1,790	338	1,019
25 — 34	997	1,906	5,049	2,285	2,000	2,558	—	—
35 — 44	1,105	2,053	3,074	2,314	1,488	2,599	—	—
45 — 54	1,157	2,189	2,698	2,409	1,000	2,663	—	—
55 — 64	1,119	2,242	1,102	2,438	407	2,673	—	—
Farm workers —								
15 — 24	667	534	461	482	—	—	—	—
25 — 34	801	607	441	545	—	—	—	—
35 — 44	983	588	362	689	—	—	—	—
45 — 54	631	719	—	—	—	—	—	—
55 — 64	321	696	—	—	—	—	—	—
Craftsmen, production process and related workers —								
15 — 24	30,990	1,401	20,673	1,519	2,797	1,555	260	991
25 — 34	27,490	1,832	13,936	2,068	2,756	2,048	—	—
35 — 44	25,627	1,909	13,805	2,099	3,363	2,105	—	—
45 — 54	20,120	1,918	8,755	2,127	2,322	2,164	—	—
55 — 64	10,202	1,868	2,956	1,980	779	2,053	—	—
Labourers, n.e.s. —								
15 — 24	3,080	1,247	2,816	1,218	567	1,237	—	—
25 — 34	2,229	1,605	1,173	1,806	—	—	—	—
35 — 44	2,299	1,509	1,097	1,783	329	1,792	—	—
45 — 54	1,865	1,922	727	1,596	—	—	—	—
55 — 64	901	1,691	261	1,650	—	—	—	—
Occupation not stated —								
15 — 24	874	1,543	2,010	2,305	1,204	2,517	255	2,382
25 — 34	797	2,177	2,118	2,903	1,863	3,099	405	3,388
35 — 44	969	2,273	1,488	2,734	1,415	3,140	—	—
45 — 54	1,244	2,266	1,295	2,783	450	2,618	—	—
55 — 64	910	2,497	446	2,384	—	—	—	—

Chapter Five

PRIVATE RETURNS TO EDUCATION

1. CONCEPT OF HUMAN CAPITAL

The previous chapter commented on the importance of education as an explanation of variations in earnings among occupations. Economists from the earliest days of the development of economic theory have been aware that relationships existed between the level of education of the labour force, the level of earnings, and the degree of income inequality and between the level of education and economic growth. Adam Smith, for example, in analyzing the factors that account for differences in wage rates, discussed the role of education and stated that education had to be regarded as investment in human capital in the same way as the purchase of a machine is regarded as an investment in physical capital. As an investment it should be expected to yield a return that would compensate for the cost of acquiring the education as well as a profit that would be at least equivalent to the profits that might be expected if the money had been invested in an alternative fashion. Marshall stressed the importance of improving the educational level of the labour force as a means of promoting economic growth.² He also suggested that a levelling of educational differentials, with a resulting levelling of earnings differentials, would reduce income inequality to a greater extent than would a redistribution of existing wealth. However, the concept of capital developed tended to be restricted to reproducible physical goods and was not expanded to include human capital. Little theoretical or empirical work was attempted before the Second World War on incorporating the role of education into economic studies.³ To a considerable extent this may have been due to a lack of data with which to work but it may also have reflected a reluctance on the part of economists to attempt to put human beings on the same basis as physical assets in studies of wealth, capital, or economic growth. The labour force was measured in terms of number of persons, number of man years worked or number of hours worked with no attempt to incorporate differentiations for variations in the quality of the labour force.

¹Adam Smith, *The Wealth of Nations*, Book I, Chapter 10, Part I.

²Alfred Marshall, *Principles of Economics*. See, for example, Book IV, Chapter 6, and Book VI, Chapters 12 and 13

³One exception to this was the study by J. Walsh, "Capital Concept Applied to Man", *Quarterly Journal of Economics* (Cambridge) XLIX (February 1935). This study made estimates of the discounted values of lifetime earnings by level of education.

HUMAN CAPITAL IN ECONOMIC GROWTH

The first systematic studies of the significance of education to income levels and to economic growth began after the War and in the last decade many theoretical and empirical studies have appeared.⁴ These studies have been concerned with the role of "human capital" in the economy and "human capital" has been considered to be the amount of education embodied in the labour force. One writer has summarized the problems being studied as the following:

- "1. What has been the total human-capital inputs into the productive system, and how have these affected national outputs, that is, gross national product, over a period of time?
2. How large a part of society's productive resources has been put into formation of human capital over the past, and how has this compared with what has gone into investment in physical capital?
3. What rates of return have been realized from investments in human capital (in college education, high school education and so forth)? . . .
4. Looking ahead, how may past, present, and prospective aggregate investments in formation of human capital be expected to affect the stream of national product in the future?"⁵

All of these questions have become the subject of considerable empirical research. Modern governments have accepted the responsibility for policies that will not only prevent sharp fluctuation in economic activity but will also promote sustained economic growth. A natural concomitant of such policy aims is the investigation and isolation of factors promoting economic growth and their relative significance. Economists have recognized that the growth of the stock of physical capital and the growth in the size of the labour force have not, together, provided a complete explanation of the growth of aggregate national product. One of the most important studies attempted for the United States quantified the contributions of different factors such as the stock of physical capital and the labour force to the increase in output since the beginning of the century.⁶ The conclusion reached was that over the period 1929 to 1957 nearly one quarter of the growth rate of the national product could be attributed in recent decades to the upgrading of the educational attainments of the labour force at an accelerating rate. The same study considered the fourth question above — the role greater investments in education may play in future economic growth.

⁴ As was noted before, the Walsh study was the main prewar discussion on the treatment of human capital. The study by Milton Friedman and Simon Kuznets, *Income from Independent Professional Practice*, National Bureau of Economic Research, New York, 1945, set out an analytic framework followed by many subsequent studies and was the first major postwar study.

⁵ See Mary Jean Bowman, "Human Capital: Concepts and Measures", *Economics of Higher Education*, ed. Selma J. Mushkin, U.S. Department of Health, Education and Welfare, U.S. Government Printing Office, Washington, 1962, pp. 69-70. This article discusses the different possible approaches to the measurement of the impact of education. Another discussion of approaches to the treatment of education in economic research may be found in the report by Theodore W. Schultz, *The Economic Value of Education*, Columbia University Press, New York and London, 1963.

⁶ Edward F. Denison, *The Sources of Economic Growth in the United States*, Supplementary Paper No. 13, Committee for Economic Development, New York, January, 1962.

Empirical studies to find answers to the second question have included attempts to estimate the gross value of the existing stock of human resources.⁷ The costs of providing specified levels of schooling, such as eight grades of elementary schooling, in terms of direct costs (such as teachers' salaries) and indirect costs (such as the earnings foregone by students because of school attendance) have been calculated. These estimates have been multiplied by the level of education of the labour force to derive the total value of the stock of education embodied in the labour force. Such estimates have provided data for comparisons with the gross value of the stock of non-human capital to assess the relative importance of each. The conclusion reached for the United States was that the stock of capital represented by human capital resources was increased much more than the stock of reproducible non-human capital over this century.⁸ For example, Schultz has estimated that the total value of the educational stock of the labour force was eight and one half times as great in 1957 as in 1900; the value of the stock of reproducible non-human capital was only six and a half times as much.

CANADIAN TRENDS IN EDUCATION

In Canada, studies have only recently become available on some aspects of the role of education in Canadian economic growth.⁹ These also suggest that educational improvements in the labour force have been an important factor in rises in Canadian productivity, although to a lesser extent than in the United States. Although the educational attainments of the Canadian labour force are substantially below the levels of the labour force in the United States, the importance of education has gained increasing recognition in Canada and, as in the United States, younger generations entering the labour force are more highly educated than their elders. Investment in educational facilities has received increasing priority in the postwar decades.

It is not within the terms of reference of this study to explore the changing emphasis on education in Canada or to analyze the shifts in the educational attainments of the population. It may be useful, however, to cite a few statistics to

⁷For example, see Theodore W. Schultz "Education and Economic Growth", *Social Forces Influencing American Education*, ed. Nelson B. Henry, National Society for the Study of Education, The Sixtieth Yearbook, University of Chicago Press, Chicago, 1961.

⁸*Ibid.*, p. 73.

⁹The Economic Council of Canada has published a study for Canada by Gordon W. Bertram similar to the Denison Study (Gordon W. Bertram, *The Contribution of Education to Economic Growth*, Ottawa: Economic Council of Canada, Staff Study No. 12, 1966). This concludes that almost one quarter of productivity improvements between 1911 and 1961 resulted from improved education. For 1929 to 1957 the figure was 20 per cent or less than half of the U.S. figure).

See also Bruce W. Wilkinson, *Studies in the Economics of Education*, Ottawa, Department of Labour, Economic and Research Branch, Occasional Paper No. 4, July 1965. This study discusses in more detail the different techniques of estimating the contribution of education to economic growth and evaluates the usefulness of such data for policy purposes. Professor Wilkinson also estimates the replacement costs of the education embodied in emigrants from Canada and immigrants to Canada in recent years.

illustrate some of the Canadian trends. Table 5.1 summarizes the schooling levels of males in the current labour force, ages 25 to 34 and 55 to 64

Table 5.1 — Schooling of Males in Current Labour Force, as at June 1, 1961

Schooling level	Age group	
	25 — 34	55 — 64
	p.c.	p.c.
No schooling or elementary only	38.0	62.7
Secondary — 1 — 3 years	33.9	20.3
Secondary — 4 — 5 years	17.6	9.8
Some university or university degree	10.6	7.2
Totals	100.0	100.0

SOURCE: DBS, 1961 Census of Canada, *Occupations by Sex Showing (a) Marital Status and (b) Schooling, by Age* (Cat. No. 94-513), Table 19.

Although even in 1961 a very substantial proportion of the younger age group had only elementary schooling, there was a marked improvement in the schooling of this age group in contrast to the older age group — somewhat over one half received some secondary school education but only 30 per cent of the older workers had any secondary schooling.

Census statistics on school attendance among those under age 25 in 1951 and in 1961 give further evidence of the changes that are occurring. Table 5.2 gives the percentages of the male population between the ages of 10 and 24 attending school in 1951 and 1961.

Table 5.2 — Per Cent of Males Attending School by Age Group, as at June 1, 1951 and 1961

Age group	1951	1961
	p.c.	p.c.
10 — 14	93.1	97.0
15 — 19	40.8	61.2
20 — 24	6.4	11.3

SOURCE: DBS, 1961 Census of Canada, *Schooling by Age Groups* (Cat. No. 92-557), Table 99; 1951 Census of Canada, Vol. II, *Population*, Table 24.

This represents a significant change in the school attendance patterns of the male population between the ages of 15 and 24, the group usually enrolled in secondary schools or universities. The proportion of 15-to-19-year-olds at school increased by some 50 per cent and the proportion of 20-to-24-year-olds at school nearly doubled.

Empirical research in Canada on the economic contribution of education has been frustrated by an even greater scarcity of data than in the United States. Although Canadian censuses have, for decades, collected data on the level of schooling and the earnings of the wage and salaried segment of the labour force, no analysis was made of the interrelationships among occupation, schooling, age and earnings of paid workers. Some extremely limited information is available from the 1951 Census; distributions were published of the size of earnings by years of schooling but not by schooling and age.¹⁰ The 1951 Census, unlike earlier censuses, did not collect statistics on the actual earnings during the year but only on the relative size, that is, under \$500, \$500 to \$999 and so forth. As a result, although medians can be calculated from the data, average earnings are unavailable. Some statistics were collected on age, education and earnings in the 1960 Survey of Consumer Finances but the data were based upon a relatively small sample of approximately 13,500 persons aged 14 and over.¹¹ The 1961 Census, therefore, provides the first detailed data on the relationships between labour force characteristics and earnings for Canada, although the data have a number of limitations. One of the most serious defects of the 1961 Census data was the exclusion from the estimates of the labour force resident on farms. Another limitation of the statistics results from the fact that the questions on educational attainment were restricted to schooling received through the more conventional channels — elementary or secondary schools and universities. No information was collected on other types of training such as vocational training, apprenticeship, attendance at teachers' colleges and so forth. The absence of information on all categories of formal training and on job training may result in attributing too much of earnings to those schooling attributes for which data exist.

Despite these qualifications, the 1961 Census data now offer the raw material for the investigation, within the Canadian framework, of the questions posed above. This chapter attempts to carry out some tentative analysis of these data. Most of the possible studies discussed above fall outside the terms of reference of this monograph — research into the areas suggested by the first, second and fourth topics. This chapter is restricted to a consideration of the third question: What rates of return are realized from investments in human capital?

It has been suggested that expenditures on education, either on the part of society through different levels of government or on the part of students and their families, are not a form of investment but rather that such expenditures represent consumption. For example, a substantial proportion of educational resources are devoted to the education of women who, to a considerable extent, remain outside the labour force during their adult lives or, if they enter the labour force, make lower contributions to national production than the male labour force with

¹⁰These tables were released in DBS, 1951 Census of Canada *Statistical Review of Canadian Education*, (Cat. No. 81—503).

¹¹These data were published in DBS, *Distribution of Non-Farm Incomes in Canada, by Size, 1959* (Cat. No. 13—517).

equivalent levels of schooling.¹² Education, therefore, may equip women to be better wives or mothers, may develop their intellects so that they may provide a more stimulating environment in their homes to their husbands and children but it may not make a direct contribution to national productivity. The proportion of men who remain outside the labour force after completion of schooling is negligible.

2. SOCIAL AND PRIVATE RETURNS TO HUMAN CAPITAL

In the modern world, living with the complexities of our civilization makes education an absolute necessity even if it is not utilized in employment. In the United States, for example, many states have required literacy as a qualification for voting; the assumption underlying this stipulation is that a voter who cannot read or write cannot be an intelligent voter. Certainly some education is a necessity for communication between an individual and other members of his society. All governments in Canada, having accepted the view that every child should have some minimum amount of education, have made school attendance compulsory until at least the age of 14 and schooling itself free. Parents are not allowed any freedom of decision as to whether or not children should go to school during these years. As a result, only a small fraction of the adult population in Canada has less than five years of elementary schooling.¹³

It is recognized in all studies of returns to education that education at all levels has an element of consumption in it. A university education may primarily equip a student to pursue a specific occupation but, as a by-product of the education, the student may have a greater appreciation of art or literature or a better understanding of the values of his society. Suggestions have been made that schooling be ranked as to whether it is primarily for consumption or primarily an investment. In such a ranking, elementary school education might be considered as entirely a consumption expenditure, secondary school education as a mixture of both and university education primarily as an investment.¹⁴

¹²The female labour force presents special problems in studies of the contribution of education to economic growth or in estimates of the stock of human capital. One solution in growth studies has been to weight women workers as the equivalent of some fraction of male workers; the weights assigned are based on the relationship of female to male earnings. Women workers have been a rising proportion of the total labour force and their inclusion in estimates of the gross value of the stock of human capital may present problems of interpretation of such data. As mentioned earlier, the valuation of human stock is in terms of the costs involved in educating persons to various schooling levels. These costs consist of public plus private costs. The public costs are basically the same for each sex. Private costs consist largely of earnings foregone and as the statistics in the previous chapter indicated, these would not differ too greatly for men and women with similar schooling levels in the younger age groups. This method of valuation therefore would tend to place similar values on both men and women workers at selected schooling levels although the contribution of each to productivity, if the contribution is valued in terms of earnings, differs substantially.

¹³Approximately 10 per cent of males and eight per cent of females aged 15 and over and not attending school had less than five years of elementary schooling.

¹⁴Schultz "Education and Economic Growth", *Social Forces Influencing American Education*, p. 52.

The returns to education can be considered from two points of view: the return to the community for the public resources allocated to education and the return to the individual for the personal costs incurred by himself and his family. The benefits to the nation are the increased productivity of the labour force while the benefits to the individual are the higher earnings that are likely to accrue to the individual as a result of the higher education. Rates of return on public expenditures may be higher or lower than private rates of return. The relationship depends upon whether the public or private sector bears the greater share of the costs of education and whether, in measuring private returns, additional earnings are measured gross or net of direct income taxes. If gross earnings are used to measure rates of return, then higher rate of return will be realized on the lower of the two expenditures. That is, if public expenditures are less than private expenditures, public rates of return will be higher. If private rates of return are measured in terms of earnings net of taxes, then the relationship of private versus public rates of return will depend, not only on the respective costs, but also on the effect of taxes on income earned.

MEASUREMENT OF COST

It is usually assumed that if students can attend an educational institution without payment of fees or other levies, then education is free and can be acquired without expense to the student. Studies suggest that only elementary schooling can be treated as representing schooling that has little or no private cost attached to it, with the possible exception of expenditure on books and school supplies. In the relevant age groups children remain dependent upon their parents, who must support them whether or not they attend school; in our society laws against child labour prohibit the child from seeking employment in the labour market. Thus, the alternatives to school attendance are idleness or work around the home and few families in a primarily industrial society require the labour of children at home. The private rates of return to elementary education are, therefore, usually very large and, in fact, close to infinity, because there is no initial cost to such education. For this reason, measurement of private rates of return to elementary schooling is meaningless.

Although elementary schooling may be considered as costless to families and students, this is not so in respect to attending high school or acquiring a university education. By the time a student qualifies for secondary school entrance he has usually reached the age when he is able to enter the labour force. Even though no fee is charged for attendance at high school, the student and his family, in effect, incur a cost if the student remains in school. This cost, which in economic terms is called an *opportunity cost*, is the loss of the wages or salaries that could be earned if the individual entered the labour force instead of continuing his education. The high school graduate, faced with the choice of employment or continuing on to university, not only has to take into consideration earnings foregone, but also the expenses of university fees, books, equipment, etc., as additional costs. The higher

the level of education the student has completed, the greater the amount of earnings he gives up in order to continue his education. Where families are in straitened economic circumstances, they may not be able to forfeit the earnings that could be added to family resources by the employment of the child. Estimates prepared for the United States, as well as for a number of other countries, show that for secondary schooling and university training, opportunity costs, as represented by earnings foregone, exceed other public resource costs and other private costs.¹⁵ The inability of families to undertake such costs may be a significant factor in the termination of education of children. For example, Canadian and American studies on the family characteristics of university students have shown that the students tend to come from families with above average incomes.¹⁶

No estimates have been attempted of public costs in Canada but it is probable that, for schooling beyond the elementary school level, opportunity costs in the form of earnings foregone are also the largest element of cost. For purposes of the subsequent analysis in this chapter, estimates were prepared of private costs by age group for students attending secondary schools and universities.¹⁷ The analysis is restricted to private costs of schooling and returns from schooling only for males. The assumptions made were that high school attendance, for males occurs during the ages 15 to 18 inclusive, that university attendance is also for a four-year period and, that the average male student is at university for the ages 19 to 22 inclusive. Statistics on school attendance suggest that male students tend to be older than female students at equivalent levels of schooling so that these appear to be reasonable assumptions as to the ages at which male students attend high schools and universities.

High school costs were assumed to consist only of expenditure on books plus earnings foregone. Estimated costs, by age, were as follows.

¹⁵See Schultz, *Education and Economic Growth*, pp. 62-63, Schultz, *The Economic Value of Education*, p. 29, and W. Lee Hansen, "Total and Private Rates of Return to Investment in Schooling", *Journal of Political Economy*, LXXI (April 1963), pp. 130-131.

¹⁶For example, see DBS, *University Student Expenditure and Income in Canada, 1961-62*, Part II, *Canadian Undergraduate Students* (Cat. No. 81-520), and *Factors Related to College Attendance of Farm and Non-Farm High School Graduates, 1960*, U.S. Bureau of the Census, Series Census — ERS (p. 27) No. 32, June 1962.

Income may perhaps be over-stressed as a factor in university or high school attendance. The census statistics show that families with children in the 16 to 24 age group attending school had average incomes nine per cent higher than those of families with children in this age group and not attending school, or an average of \$7,220 as compared with \$6,636. However, other factors such as the education and occupation of parents may also be significant. Some 27 per cent of families with children still at school had heads with four or five years of high school or university training; only 12 per cent of heads of families whose children were not at school were this well educated. In a surprising 86 per cent of families with children aged 16 to 24 and with heads who had university degrees the children were still attending school. Some 27 per cent of families with children at school were headed by persons in professional or managerial occupations in contrast to only 13 per cent of families with no children at school. Families whose heads are better educated or in occupations requiring skills or training may be more appreciative of the value of an education.

¹⁷Detailed explanations on methods of estimation and sources of data may be found in Appendix 5.A, at the close of the present chapter.

Table 5.3 — Private Annual Costs of Secondary Schooling for Males, 1961

Age group	Books	Earnings foregone	Total
15	25	700	725
16	25	899	924
17	25	1,098	1,123
18	25	1,321	1,346

SOURCE: See notes at end of chapter.

For university students, costs were calculated as earnings foregone minus monies received through bursaries and scholarships plus selected costs of school attendance — fees, tuition, books and equipment and transportation (other than local). The estimated costs are shown below.

Table 5.4 — Private Annual Costs of University for Males, 1961

Age group	Earnings foregone ^a	Less scholarships	Tuition	Books	Transportation	Total
	\$	\$	\$	\$	\$	\$
19	1,042	-125	409	97	70	1,493
20	1,075	-125	409	97	70	1,526
21	1,571	-125	409	97	70	2,022
22	1,915	-125	409	97	70	2,366

^aThese statistics are derived from average annual earnings reported by members of the current labour force rather than rates of pay of the current labour force and thus these are realized earnings of the labour force. This implicitly allows for loss of earnings because of unemployment, illness or other factors which result in a loss of earnings during the year.

SOURCE: See notes at end of chapter.

These two series are the estimates of private costs incurred by high school students and university students in obtaining an education. Not only are the costs quite substantial, even in the youngest age groups, but they rise with age. These estimates assume four years of schooling at both the high school and the university level. For those occupations requiring more than four years university training as, for example, medicine where the training of a specialist may last as long as nine or ten years, costs would be higher still.

MEASUREMENT OF INCOME RETURNS

Although there is general agreement as to the appropriate measurement of costs, there is more divergence in the approaches to the measurement of private returns. The studies that have been carried out recently fall into two broad categories — studies measuring “lifetime” incomes by levels of education and

studies calculating rates of return on investment in education.¹⁸ Some studies of lifetime incomes have ignored the problems of costs and have been confined to estimating the value of lifetime income (or earnings) streams for individuals with different levels of schooling.¹⁹ Other studies have estimated the present value of such income streams by discounting the streams, using a number of different interest rates. If income streams are discounted to calculate present value at the age at which a particular level of schooling commences, as, for example, the age of entry into secondary school, then this method implicitly allows for opportunity costs since earnings may be close to zero during the years of school attendance. However, no allowance is made for other costs. If the age to which the income stream is discounted is one after the completion of schooling then no allowance is made for any costs.²⁰ Studies of rates of return have related costs of extra schooling to the increments to earnings that result from higher levels of schooling, to estimate what might be termed the profitability of additional schooling.

The remainder of this chapter examines these various types of calculations and provides some preliminary data for Canada based upon the census material.

LIFETIME EARNINGS

All of the estimates derived by the methods mentioned above are based upon cross-sectional data collected through surveys or censuses but with further modifications. Some of the modifications are common to all estimates, both of lifetime earnings and rates of return.

For estimates of what are termed "lifetime" earnings the assumption is made that a cohort of persons of a certain age with certain educational characteristics or certain educational and occupational characteristics enters the labour force. Some of the studies mentioned earlier have further assumed that attrition of this group only occurs because of deaths of the original members and that survivors remain in the labour force and, as they age, receive the average earnings shown by cross-sectional data for that age and education category. The aggregate earnings of the survivors are calculated by multiplying the number of survivors by the average earnings. (The method is described in more detail in the appendix to this chapter.) The aggregate earnings are then summed for the life span used and divided by the original number of persons in the cohort to arrive at average lifetime earnings.

¹⁸ Examples of studies of the first category are those by Herman P. Miller, "Income in Relation to Education", *American Economic Review*, Vol. L, December 1960, and H.S. Houthakker, "Education and Income", *Review of Economics and Statistics*, Vol. XLI, February 1959. Examples of the second type of study are W. Lee Hansen, "Total and Private Rates of Return to Investment in Schooling", *Journal of Political Economy*, LXXI, April 1963, and Gary Becker, *Human Capital*, National Bureau of Economic Research, Columbia University Press, New York and London, 1964.

¹⁹ Examples of such estimates are those by Herman Miller.

²⁰ The estimates in the Houthakker and Hansen studies show present value of additional income as viewed at age of 14.

Average lifetime earnings then are the probable average earnings over a specified time period per person *entering* employment at a specified age, not average lifetime earnings over a specified time period per person *surviving* for the complete length of the time period. Therefore, a person working the full period who received the average earnings of his particular group would have higher lifetime earnings than those of his total age cohort.

The "lifespan" can be defined in different ways — for example, from age 15 until the oldest possible age of survival (100 or so), age 15 to 65, age 25 to 65 and so forth. While the whole possible life span may be suitable for the measurement of lifetime *income* it does not seem appropriate to the measurement of lifetime *earnings* where the time period used should bear some relation to the possible duration of the working career. Restricting estimates to the age groups 25 to 64 has the advantage of measuring career earnings during those years when formal training is complete and before withdrawals from the labour force begin to be important. Estimating earnings over longer time periods would alter the relationship between the earnings of those with lower levels of education and those with higher levels; measuring earnings from the age of 18 or 19 rather than the age of 25 would raise the aggregate earnings of the less educated to a greater extent than those of the more highly educated since the lower the level of education the lower the age at which full-time labour force participation starts and at which regular earnings begin to accrue. If lifetime earnings are not discounted and estimates of earnings beyond the age of 65 are included, more would be added to the earnings of the more highly educated as their earnings and labour force participation are less affected by aging than the earnings and participation rates of the less skilled. However, when discounting earnings, to derive present values measuring earnings from age 18 to retirement rather than from 25 to 64 would narrow the differences between the discounted earnings of those with little education and those with university degrees since earnings that would not be received until a period of nearly fifty years in the future would have a very low present value.

It has been suggested that a better approach to the measurement of lifetime earnings would be to make an adjustment for the probability of labour force participation as well as for mortality.²¹ Participation rates show that labour force participation rises as the level of schooling rises.²² Table 5.5 summarizes participation rates of the male labour force by age and schooling in 1961.

With such further adjustments for participation, lifetime income could be the measurement of earnings from the age at which full-time employment commences until the age of retirement. Lifetime earnings measured in this manner on an undiscounted basis would probably show greater differentials between the earnings of the

²¹ Bowman, "Human Capital: Concepts and Measures", *Economics of Higher Education*, *op. cit.*, pp. 85-88.

²² In the younger age groups lower participation rates for the higher levels of education reflect the fact that some of these groups are still attending school.

more educated and the earnings of those with low levels of schooling. However, if lifetime earnings were to be estimated adjusting for participation rates as well as mortality, the participation rates that should be used are the participation rates of the population not at school rather than the participation rates of the total population by age groups.

Table 5.5 — Participation Rates by Age and Schooling for Males, 1961

Age group	No schooling or elementary	High school 1 — 3	High school 4 — 5	Some university or degree
15 — 19	46.8	35.4	37.1	54.1
20 — 24	85.0	92.0	88.5	72.0
25 — 34	90.7	95.9	96.9	94.9
35 — 44	90.9	96.0	97.2	98.0
45 — 54	88.8	94.3	95.8	96.8
55 — 64	79.1	85.1	87.0	89.9
65+	25.8	32.6	34.5	43.7

SOURCE: Based on DBS, 1961 Census of Canada, *Schooling by Age Groups* (Cat. No. 92-557), Tables 99 and 102; supplemented by unpublished data and *Occupations by Sex Showing (a) Marital Status and (b) Schooling, by Age* (Cat. No. 94-513), Table 18.

Table 5.6 — Lifetime Earnings of Males for Selected Ages and Selected Levels of Schooling, 1961

Schooling	Age group		
	15 — 64	19 — 64	25 — 64
	\$	\$	\$
Elementary 5 — 8	151,820	148,449	137,230
High school 4 — 5	221,700	222,676	209,484
University degree	356,108	357,675	353,624

SOURCE: See *infra*, Table 5.7 for ages 25 to 64. Additional calculations for ages 15 to 64 and 19 to 64.

Table 5.7 presents estimates of career (or lifetime) earnings of males aged 25 to 64 in the total non-farm labour force and in selected occupational categories adjusted for mortality but not for labour force participation. Estimates were restricted to these age groups because data were not available in sufficient detail for those aged 15 to 24 for individual occupations to allow using an age somewhat lower than 25. However, for all persons with five to eight years of elementary schooling, four to five years of high school and a university degree, earnings estimates are shown in Table 5.6 for earnings for the ages 15 to 64, 19 to 64 and 25 to 64. The statistics confirm that measurement of earnings from the age of 15 rather than the age of 25 reduces the differential between the earnings of the low and high schooling categories.

Table 5.7 — Lifetime Earnings Based on Arithmetic Means for Males Aged 25 to 64, by Years of Schooling Completed, as at June 1, 1961

Occupation	No schooling or elementary	High school 1-3	High school 4-5	Some university	University degree
	\$	\$	\$	\$	\$
All occupations	131,026	168,257	209,484	234,448	353,624
Managerial occupations	200,957	232,718	283,810	315,637	423,328
Managers, specified	198,306	229,703	266,760	282,355	355,868
Owners and managers, n.e.s.	201,132	233,177	287,147	321,828	431,322
Manufacturing	223,516	273,880	341,497	382,798	490,671
Construction	222,149	246,363	296,846	339,942	472,533
Transportation, communication and other utilities	247,010	255,704	292,606	317,867	418,236
Wholesale trade	218,623	261,635	314,244	339,909	448,998
Retail trade	177,769	201,770	245,657	266,662	348,889
Finance, insurance, real estate	277,364	297,781	322,443	380,923	467,382
Community, business and personal service	172,267	193,287	248,195	291,024	414,757
Public administration	183,105	192,131	218,575	241,341	327,516
Professional and technical occupations	171,359	195,985	224,094	225,474	354,143
Professional engineers	—	227,803	260,786	336,566	318,288
Physical scientists	—	—	—	—	281,466
Biologists and agricultural professionals	—	—	—	—	301,067
Teachers	172,697	172,269	207,284	214,964	357,773
Professors and college principals	—	—	—	—	286,314
School teachers	—	178,636	206,971	214,825	497,846
Health professionals	171,740	172,803	187,778	254,532	583,535
Physicians and surgeons	—	—	—	—	402,566
Dentists	—	—	—	—	468,154
Law professionals	—	—	—	—	469,394
Lawyers and notaries	—	—	—	—	

Table 5.7 — Lifetime Earnings Based on Arithmetic Means for Males Aged 25 to 64, by Years of Schooling Completed, as at June 1, 1961 — concluded

Occupation	No schooling or elementary	High school 1 — 3	High school 4 — 5	Some university	University degree
	\$	\$	\$	\$	\$
Professional and technical occupations — continued					
Religion professionals	92,081	105,639	107,367	113,779	133,311
Artists, writers and musicians	155,937	212,661	236,829	256,087	260,883
Other professionals	180,640	199,632	227,461	224,048	315,756
Architects	—	—	—	—	402,819
Accountants and auditors	—	229,623	258,684	259,078	349,823
Social welfare workers	—	156,758	181,036	168,146	215,752
Clerical occupations	134,674	149,782	160,573	159,867	172,995
Sales occupations	142,392	175,234	209,534	216,961	255,850
Service and recreation occupations	112,255	142,282	164,420	191,245	245,343
Protective service occupations	136,576	163,215	190,031	218,147	282,090
Civilian protective occupations	131,824	158,939	170,912	176,285	—
Housekeepers, waiters, cooks and related workers	95,136	108,926	112,291	—	—
Other service occupations	105,684	123,748	135,737	—	—
Transport and communication occupations	135,614	160,604	182,961	196,172	—
Supervisors of transport operations	162,355	180,426	194,790	—	—
Operators, railroad	192,118	200,747	203,164	—	—
Operators, water transport	139,561	185,116	204,970	—	—
Operators, road transport	126,774	141,757	145,476	—	—
Other transport occupations	120,929	149,149	—	—	—
Other communication occupations	125,223	152,385	177,236	—	—
Farm workers (other than farm operators or managers)	69,498	92,601	101,122	—	—
Loggers and related workers	82,937	122,719	141,836	—	—

Fishermen, trappers and hunters	66,941	100,793	—	—	—
Miners, quarrymen and related workers	150,288	171,731	185,164	—	—
Craftsmen, production process and related workers	135,474	157,451	170,676	169,593	194,392
Millers, bakers, brewers and related food workers	125,716	138,117	144,798	—	—
Tire builders, vulcanizers and other rubber workers	141,098	154,479	—	—	—
Leather cutters, lasters, sewers and other leather workers	104,477	116,028	—	—	—
Spinners, weavers, knitters and other related workers	113,159	124,811	—	—	—
Tailors, furriers, upholsterers, and related workers	121,256	135,430	139,020	—	—
Carpenters, cabinet makers, sawyers and related workers	111,363	131,914	139,166	131,189	—
Paper makers, still operators, chemical and related workers	161,920	182,038	195,619	—	—
Printers, bookbinders and related workers	181,088	196,041	198,309	—	—
Furnacemen, moulders, blacksmiths and related metal workers	154,861	162,678	172,739	—	—
Machinists, plumbers, sheet metal workers and related workers	147,797	160,937	167,578	166,043	—
Mechanics and repairmen	140,045	155,715	162,737	165,415	—
Electricians and related electrical and electronics workers	154,756	174,419	184,577	179,012	—
Painters, paperhangers, and glaziers	114,031	123,942	124,507	—	—
Bricklayers, plasterers and construction workers, n.e.s.	127,406	151,670	168,515	—	—
Clay, glass and stone workers	133,108	149,553	—	—	—
Stationary engine and excavating and lifting equipment operators and related workers	143,020	160,456	177,856	—	—
Longshoremen and other freight handlers	114,340	130,423	143,457	—	—
Sectionmen and trackmen	116,525	127,631	—	—	—
Other production process and related occupations	156,736	179,260	197,199	190,704	220,374
Labourers, n.e.s.	114,175	111,657	118,079	—	—
Totals, All occupations	131,026	168,257	209,484	234,448	353,624

SOURCE: Estimates based on DBS, 1961 Census of Canada, *Incomes of Individuals* (Cat. No. 98-502), Table B6.

As might be expected from the differentials in earnings discussed in the previous chapter, considerable variations occur between occupations even where persons have similar educations. Probable lifetime earnings for university graduates ranged from a low of \$133,311 for a clergymen or a priest to \$583,535 for a physician or surgeon. Similar variations were evident among those with only elementary schooling where lifetime earnings in managerial occupations were approximately \$200,000 but as low as \$67,000 among fishermen, trappers and hunters. The statistics provide some indication of the differences in the average income flows to different occupational categories.

DISCOUNTED EARNINGS

The criticism of this method of relating earnings and education is that it ignores the costs involved in obtaining the education and does not take into account the fact that age-earnings profiles differ for different groups. As a result, such unadjusted lifetime earnings show much greater differences between the earnings accruing to persons with higher levels of education and to those with lower levels of education than do alternative methods of estimation. As the previous chapter pointed out, the lower the level of schooling the flatter the profile of average earnings by age. That is, a worker with a limited education can usually expect to attain his peak earnings within ten or fifteen years of entry into the labour force. University graduates, on the other hand, may work for thirty years before maximum earnings are reached. Thus, relative differentials of earnings by age and education are not uniform for all levels of schooling and are much wider between age groups among the more highly educated than among the less skilled. The longer the waiting period involved before benefits return, the lower the present value of such returns, and also the higher the probability of intervening events preventing the realization of higher returns.

Because of these differences in earnings experiences, if the value of lifetime earnings is discounted by some discount rate to provide estimates of the present value at some fixed age such as 19 or 25, the relative differences between the values of lifetime earnings for different education groups shrink. The higher the discount rate used the smaller the differences. The choice of rates to be used is usually arbitrary.

Table 5.8 shows the present value calculated using different discount rates at age 19 of the lifetime earnings earned between the ages 19 to 64 as shown in Table 5.6. Similar data are presented for present values for the ages of 15 to 64. The rates used are low interest rates: three per cent, which is approximately the rate of return on bank deposits; five per cent, which is approximately the current rate of return on Canada Savings Bonds; and eight per cent, which is the rate of return that could be obtained on somewhat riskier investments such as mortgages.

As has been pointed out, present values calculated at the commencement of schooling implicitly reflect opportunity costs by assigning zero earnings to the years of schooling. Discounting to age 19, then, has this cost element for university

graduates but not for elementary and high school graduates. Discounting to age 15 implicitly includes these costs for high school graduates as well. Since the population under 15 cannot work and is compelled to attend school, discounting to any age below 15 is meaningless.

Table 5.8 — Discounted Lifetime Earnings

Schooling	Discount rate			
	0	3 p.c.	5 p.c.	8 p.c.
	Males aged 19 – 64			
	\$	\$	\$	\$
Elementary 5 – 8	148,449	74,275	54,524	35,330
High school 4 – 5	222,676	108,626	78,114	49,321
University degree	357,675	164,115	112,100	65,187
	Males aged 15 – 64			
	\$	\$	\$	\$
Elementary 5 – 8	152,473	72,720	48,424	29,301
High school 4 – 5	221,700	100,671	64,264	36,252
University degree	356,108	151,852	92,225	47,914

SOURCE: Calculations derived from cross-sectional data in Appendix to this chapter.

On an undiscounted basis, lifetime earnings of university graduates are 141 per cent higher than those of persons with five to eight years of elementary schooling if 19 is used as the starting age and 134 per cent higher if the age is lowered to 15. If an eight per cent discount rate is applied, discounted earnings are only 85 and 63 per cent higher for ages 19 and 15, respectively. The use of rates higher than eight per cent would narrow the differentials further. These estimates confirm that, because of the differences in earnings experiences, the extent of the earnings advantage of the highly trained can differ substantially if present value is examined rather than the undiscounted income stream. The degree of difference is affected by the interest rate used and the age span for which discounts are calculated.

RATES OF RETURN

The second approach to the examination of earnings and education is to compare income benefits from education with the estimated costs incurred in obtaining the education. The benefits derived are the additional income flows that accrue from possessing more education. Some of the assumptions made for calculation purposes are similar to those used in calculating lifetime earnings. Average earnings are estimated for each age and education group, again on the assumption of a cohort of persons starting a career at some specific age. The anticipated average earnings estimated are the average earnings per initial entrant, not the average earnings per survivor as shown by cross-sectional data. (The two averages are shown in the notes at the end of this chapter.) For some particular level of

schooling, for example, completion of a university degree, the returns to extra education would be the difference between the average earnings per person with a university degree minus the average earnings per person with a high school diploma in each age group.

A number of methods have been used to calculate the internal rates of return to investment in schooling. The calculations below are, of course, rates of return to private investment in schooling. One method that has been used is to treat the costs of schooling as negative income during the years of school attendance.²³ The internal rate of return, then, is that discount rate which yields a present value of zero for the net income stream derived from the additional education. The figures in Table 5.9 show the estimated earnings differentials

**Table 5.9 — Additional Income from Employment Received by Males,
Year Ended May 31, 1961, as a Result of Completing
Selected Levels of Schooling^a**

Age	High school 4 – 5 years	University degree
	\$	\$
15	– 725	–
16	– 924	–
17	– 1,122	–
18	– 1,346	–
19	50	– 1,493
20	198	– 1,526
21	497	– 2,022
22	595	– 2,366
23	668	447
24	839	694
25 – 34	1,310	2,117
35 – 44	1,887	4,040
45 – 54	2,092	4,323
55 – 64	1,816	3,798
	p.c.	p.c.
Rate of return	16.3	19.7

^aFor the ages 25 to 64 the earnings figures are the additional earnings per year at each age resulting from additional schooling. For high school graduates these are the additional earnings received by graduates as compared with persons having only five to eight years of elementary schooling. For university graduates it is the increment in earnings over the earnings of persons with four to five years of high school.

SOURCE: See notes in Appendix 5.A to the end of this chapter.

for cohorts of males who have completed high school and for cohorts of males who have completed university. For high school graduates, the earnings differentials are those between high school graduates and males with only five to eight years of elementary schooling, and for university graduates the differentials are those between university graduates and males with four to five years of high school.

²³See Becker, *Human Investment*, *op. cit.*

It will be recognized that the negative entries are the costs of schooling shown in the earlier sections of this chapter. Another study used basically similar methods of estimation but elaborated them somewhat.²⁴ This alternative method, instead of considering costs to be negative income, treated the costs as an investment. The rate of return, then, was calculated to be that rate of interest which made the present value of the investment equal to the present value of the income stream. This method, illustrated in Table 5.10, yields the same results as the previous approach but eliminates the use of negative figures. The statistics show the cost to an elementary school graduate of securing both a high school graduation diploma and a university degree and the net earnings differentials between a university degree and an elementary school education, by age group.

Table 5.10 — Costs and Returns to Elementary School Graduates from Completion of Elementary School to Completion of University

Age	Costs or investment	Additional income ^a
	\$	\$
15	725	—
16	924	—
17	1,122	—
18	1,346	—
19	1,493	—
20	1,526	—
21	2,022	—
22	2,366	—
23	—	1,113
24	—	1,531
25 — 34	—	3,418
35 — 44	—	5,910
45 — 54	—	6,396
55 — 64	—	5,597
Rate of return	17.1 per cent	

^aFor the age groups 25 to 64 the earnings figures represent the additional earnings per year at each age resulting from additional schooling.

SOURCE: See notes at end of chapter.

The estimates in Table 5.9 suggest that rates of return based on earnings before taxes are higher for an investment in a university education than for an investment in a high school education. For both levels of schooling the internal rates of return are substantial and alternative investments to education would be more profitable only if yields exceed rates shown in the two previous tables. These findings as to the greater returns to a university education than to a secondary school education appear to be the reverse of the American experience where

²⁴Hansen, *Total and Private Rates of Return to Investment in Schooling*, *op. cit.*

estimates prepared for a number of years using census and other data suggest that higher rates of return occur for high school graduation than for university graduation.²⁵ An examination of United States census data from the 1950 and 1960 Censuses suggests that there are significant differences in the age-earnings profiles of the various education groups in the two countries. For example, in the age group 25 to 34 there are much greater relative differences between the average earnings of university graduates and the average earnings of those with secondary or elementary school diplomas in Canada than in the United States. A higher education is a scarcer attribute in Canada and, as a result, younger entrants into the labour force with university degrees may have a greater immediate salary advantage relative to high school graduates and older university graduates than is the case in the United States. Competition among employers for the limited supply of university graduates coming into the labour market each year may have raised salaries offered to graduates more rapidly in recent years than the salaries of university graduates who have been in the labour force over a longer period of time. The average earnings by levels of schooling for those aged 25 to 34, according to the recent censuses in the two countries, show the following patterns.

Table 5.11 — Average Earnings for Males Aged 25 — 34, by Level of Schooling

Level of schooling	U.S.A. 1959 ^a	Canada year ending June 1, 1961
	\$	\$
Elementary schooling 5 — 8 years	—	3,418
Elementary schooling 8 years	4,357	—
High school 4 — 5 years	5,480	4,760
University degree	7,146	6,909

^aWhite males only.

SOURCE: DBS, 1961 Census of Canada, *Incomes of Individuals* (Cat. No. 98-502), Table B 6. United States Census of Population 1960, *Occupation by Earnings and Education* (Report No. PC (2)-7B), Table 1.

The other significant difference evident between Canadian and American data is the shapes of the age-earnings curves. In the United States, for all levels of schooling, comparisons of earnings in the older age groups with earnings in the younger age groups show greater differences than is true in Canada. The significance of this to estimates of present value of lifetime income streams has already

²⁵ See Hansen, *Total and Private Rates of Return to Investment in Schooling*, p.138, and Becker, *Human Capital*, p. 128. The Becker estimates show substantially higher rates of returns to high school graduates than to university graduates in recent years.

Hansen points out that highest rates of returns are received by elementary school graduates who have no costs and then by persons leaving high school after one or two years, as private costs are exceedingly low at this point. As has been pointed out, it is assumed that private costs of elementary schooling for Canada are zero, as well, so that private returns to elementary schooling would also be the highest of all since such returns are infinitely large.

been mentioned. Table 5.12 shows the relationship of average earnings for the age groups between 35 and 64 to average earnings of the 25 to 34 year old group for various levels of schooling in each country.

Table 5.12 — Ratio of Average Income from Employment by Age Group and Schooling for Males in Current Labour Force, of Canada and the United States^a
(Age group 25 — 34 = 100)

Age group	Canada					
	No schooling or elementary	High school 1 – 3	High school 4 – 5	Some university	University degree	
25 – 34	100.0	100.0	100.0	100.0	100.0	
35 – 44	110.4	111.6	121.4	129.3	144.2	
45 – 54	110.6	114.7	128.8	134.7	156.6	
55 – 64	105.4	110.6	124.9	131.6	153.3	
	United States					
	Elementary 0 – 7	Elementary 8	High school 1 – 3	High school 4	College 1 – 3	College 4 or more
25 – 34	100.0	100.0	100.0	100.0	100.0	100.0
35 – 44	113.5	111.6	113.5	118.7	134.3	154.3
45 – 54	115.6	114.8	117.1	124.0	146.7	189.4
55 – 64	115.6	112.6	117.5	126.6	146.9	186.1

^aFor Canada, employment income is for the year ended May 31, 1961 and for the United States the income is for the calendar year 1959. For Canada, the statistics are for males in the current labour force on June 1, 1961 while for the United States the data are for white males in the current labour force on April 1, 1960.

SOURCE: See Table 5.11.

The only education group showing similar age-earnings patterns in both countries were the high school graduates.²⁶ For levels of schooling lower or higher than this, earnings in older age groups relative to younger age groups rose more in the United States than in Canada. It should perhaps be noted that it is probable that a much higher proportion of the university-trained labour force in the United States as compared with Canada had post-graduate training, and this might be a partial explanation for the difference in the earnings experiences of university

²⁶Differences exist between Canadian provincial school systems and the American system at the secondary school level. Some Canadian provinces have five years of secondary schooling while others have four as in the United States. As a result some universities have accepted the fifth year of high school as the equivalent of one year of university. It has been suggested that high school graduates from five-year courses should be considered to have some university and not simply high school graduation. This is the point of view which has been adopted in the study by Gordon Bertram on the contribution of education to economic growth in Canada published by the Economic Council of Canada.

graduates. There were no data to confirm this but education statistics indicated that a higher percentage of university graduates in the United States continued on to pursue graduate studies than was the case in Canada.

The other element in estimating returns is the costs. No published estimates for the United States for 1959 of private costs of schooling similar to above costs for Canada exist to provide some indication as to relative levels of private costs in the two countries. Until more current estimates of costs and returns become available for the United States it is impossible to explore further whether different relationships exist between costs and yields in the two countries and the reasons for such differences.

Some concluding comments should be made concerning some of the limitations of estimates of rates of return. The above estimates were made for gross earnings before taxes; the higher the level of earnings the higher the taxes payable and the higher the marginal tax rates applicable to additional income increments. Estimates on an after-tax basis would show lower yield rates and might reverse the findings as to the profitability of investment in a university education vis-à-vis a high school education.

A more serious limitation of the above analysis is that it is based on cross-sectional data secured at one point of time. Substantial increases have occurred in earnings in recent decades, whether measured in current dollars or in real terms.

Should these trends continue, actual lifetime earnings will, in fact, be much higher than indicated by the estimates based upon cross-sectional data. The extent of under-estimation will be affected by the age for which the estimates are prepared and the productivity growth rate. Some estimates have been prepared for the United States using varying assumptions as to productivity increases and discount rates. These estimates show, for example, that lifetime earnings of a university graduate aged 20 will, on an undiscounted basis, be more than twice as large if productivity increases of three per cent occur than if an assumption of zero productivity increase is made.²⁷

Where such adjustments have been attempted, the assumption has been made of equal benefits to all education groups. This points to another weakness of these estimates — the assumption that differentials existing between the earnings of different education groups will remain unchanged. The lack of Canadian data makes it impossible to examine Canadian trends but the narrowing of earnings between skilled and unskilled occupations between 1931 and 1951 suggests that a narrowing

²⁷ Adjustments of this type have been incorporated in the estimates prepared by Becker in *Human Capital*. See also the comments by Herman Miller in "Lifetime Income and Economic Growth", *American Economic Review*, Vol. LV, September 1965, on the effects of economic growth on earnings by age cohorts. Miller has also prepared estimates of lifetime earnings for selected occupations and educational categories using different assumptions as to productivity increases and discount rates. These have been published by the U.S. Bureau of the Census in *Present Value of Estimated Lifetime Earnings Technical, Paper No. 16*, Washington, 1967.

probably occurred between earnings of workers with higher and lower levels of education.²⁸ United States data indicate that changes have occurred in differentials from decade to decade.²⁹ For example, if, in future, differentials between the higher and lower levels of schooling widen, the returns to university graduates may prove to be larger than the above estimates indicate. On the other hand, if the increasing supply of university graduates in the future results in less of a salary premium on a university training, differentials could narrow. This might result in lower returns to private investments in higher levels of schooling. The estimates of rates of return above therefore must be interpreted as the rates of return based upon a static situation. The incorporation of assumptions about the direction of change in earnings might alter the results.

²⁸For evidence, see Sylvia Ostry, "Labour Economics in Canada", Chapter XV in H.D. Woods and Sylvia Ostry, *Labour Policy and Labour Economics in Canada*, Toronto, 1962.

²⁹Herman Miller in *Rich Man, Poor Man* shows that a narrowing occurred in the United States between 1940 and 1950 but that this trend was reversed between 1950 and 1960. Becker in *Human Capital*, Chapter VI, shows that relationship between returns to a high school education and to a university education changed between 1939 and 1958 in the United States and suggests that rates of return on both high school and college education declined significantly during the first forty years of the century.

APPENDIX 5.A — NOTES ON METHODS

Estimates of Costs of Schooling

Estimates of earnings foregone for the age groups 15 to 24 were based on data collected in the census sample questionnaire on incomes. Tabulations were available on income from employment by sex, by age and by schooling of the current labour force. Average employment income was tabulated only for the 15 to 24 age group in total. Data tabulated from the main census questionnaire on wages and salaries earned by wage-earners by age and schooling for those aged 15 to 19 and 20 to 24 were used to estimate earnings for the same age groups from the sample data. Estimates for individual years of age from 15 to 24 for each level of schooling studied were then obtained by interpolation. Estimated average earnings for males aged 15 to 19 and 20 to 24 were as follows.

**Table 5.A.1 — Average Earnings for Males Aged 15 — 19 and 20 — 24,
Year Ended May 31, 1961**

Level of schooling	Age group	
	15 — 19	20 — 24
	\$	\$
Elementary 5 — 8 years	1,221	2,364
High school 4 — 5 years	1,223	2,984
University degree	1,413	3,423

The number of university graduates in the age group 15 to 19 was very small.

High School

The estimate used for the cost of books of high school students was an arbitrary one, determined after some informal investigation of what normal expenditures might be. Some school systems provide free books to high school students but no information exists on the prevalency of this practice.

It should be noted that no adjustment was made to the earnings foregone estimates for high school students for possible part-time earnings or summer employment. Census statistics indicate that only a small fraction of the secondary school age groups attending school reported labour force participation during the previous twelve months.³⁰ The statistics used for earnings foregone for high school students were the estimated average earnings of males with five to eight years of

³⁰See DBS, 1961 Census of Canada, *Characteristics of Persons Not in the Labour Force* (Cat. No. 94-546), Table 42.

elementary schooling. This group included persons who did not complete elementary school and for whom no separate data existed. The statistics on earnings of elementary school graduates would have been more appropriate but such tabulations were not possible from the census. Further, for students in the senior years of high school, earnings foregone or opportunity costs should perhaps be based upon the earnings of members of the labour force with some secondary schooling. If this series had been used, the earnings foregone estimates used for high school costs would have been somewhat higher.

University — For university students, earnings foregone were estimated by taking average earnings of high school graduates in the relevant age groups and subtracting from these an estimate of the average earnings of university students from part-time and summer employment.³¹ The statistics indicate that 90 per cent of male university students held summer jobs and another small fraction held part-time jobs during the school year. Average earnings from summer employment were assumed to equal median monthly earnings multiplied by four — the probable duration of employment — and estimated to be average earnings per student working. This average was adjusted downward to estimate average earnings per student at university. The earnings foregone estimates were then compiled as follows.

Table 5.A.2 — Average Earnings Foregone for Males Aged 19 — 22

Age	Gross earnings foregone	Less earnings during holidays	Less part-time earnings	Net earnings foregone
	\$	\$	\$	\$
19	1,600	500	58	1,042
20	1,997	864	58	1,075
21	2,493	864	58	1,571
22	2,837	864	58	1,915

For estimates of part-time earnings and other costs, the statistics used were the average costs of students registered in arts and science, engineering, medicine and dentistry. In addition to an adjustment for student earnings, one was also made for average receipts of bursaries and scholarships.

Some students receive other miscellaneous grants but no adjustment was made for this. The estimated direct costs of schooling were assumed to be tuition, books, supplies and transportation costs of students whose normal residence was not in the same city. These are the costs that are usually accepted as the additional costs of securing a university education although there may be other costs that should be included. For example, one author has suggested the inclusion of the

³¹ Statistics on the income and earnings of university students were obtained from DBS, *University Student Expenditure and Income in Canada, 1961-62, Part II — Canadian Undergraduate Students* (Cat. No. 81-520).

possible return on savings which might have occurred from additional income that would be available to the family if children entered the labour force permanently instead of staying in school.³²

Methods of Estimating Lifetime Earnings

The estimates of lifetime earnings were derived by the use of life tables combined with average earnings by age for the various education groups.³³ As an example, calculation of lifetime earnings of university graduates between the ages of 25 and 64 is given below:

1. Out of every 100,000 male children born in 1961, 94,577 could expect to survive to the age of 25. Assume that they are all university graduates and all enter the labour force and work until the age of 65.

2. Between the ages of 25 and 34 the survivors will live a total of 939,329 man-years.³⁴ If these individuals were all university graduates, on average they could expect to earn \$6,909 per year. Aggregate earnings for the group for this time period would be \$6,489 million.

3. The number of man-years lived between ages 35 and 44 would be 920,559. Average earnings of university graduates in this age group are \$9,966 so that aggregate earnings would be \$9,174 million.

4. For the age group 45 to 54, the number of man-years lived is 879,770, the average earnings \$10,821 and aggregate earnings \$9,520 million.

5. For the age group 55 to 64, the number of man-years lived is 778,644, the average earnings \$10,609 and aggregate earnings \$8,261 million.

Average lifetime earnings per initial graduate are simply the sum of the aggregate earnings for all the age groups (\$33,445 million) divided by the original number of males (94,577). This yields a figure of \$353,624 per person.

These estimates were also used for calculating differentials by age and education groups. For example, for the age group 45 to 54 the aggregate earnings for the original entrants averaged \$952 million in total per year in this age group and the average annual earnings were \$10,066 per person in contrast to the average earnings of \$10,821 reported by survivors.

Table 5.A.3 summarizes actual average earnings by sex, age and occupation as shown by cross-sectional data from the 1961 Census for males aged 19 to 64 with selected levels of schooling. Table 5.A.4 shows the *hypothetical* average

³²Richard S. Eckaus, "Education and Economic Growth", *Economics of Higher Education*, ed. Selma J. Mushkin, p. 114.

³³Life tables used are DBS, *Canadian Life Tables, 1960-1962* (Cat. No. 84-516).

³⁴A somewhat greater precision could be achieved by using the number of persons still alive at the mid-point rather than at the beginning of each age.

earnings of a cohort of males aged 19 with the same age and schooling as estimated by the method described above. The statistics in this second table were the statistics used for earnings differentials in the calculation of the rates of return.

Table 5.A.3 — Average Earnings of Males by Age and Selected Levels of Schooling, Cross-Sectional Data, 1961 Census

Age	Elementary school 5 — 8 years	High school 4 — 5 years	University degree
	\$	\$	\$
19	1,550	1,600	—
20	1,800	2,000	—
21	2,000	2,500	—
22	2,250	2,850	—
23	2,425	3,100	3,550
24	2,550	3,400	4,100
25 — 34	3,418	4,756	6,908
35 — 44	3,807	5,773	9,964
45 — 54	3,844	6,124	10,821
55 — 64	3,701	5,938	10,595

The estimates of average earnings per person for a cohort of 95,483 males aged 19 for the ages 19 to 64 and selected levels of schooling were as follows.

Table 5.A.4 — Hypothetical Earnings Estimated from Cross-Sectional Data, 1961 Census

Age	Elementary school 5 — 8 years	High school 4 — 5 years	University degree
	\$	\$	\$
19	1,550	1,600	—
20	1,797	1,997	—
21	1,994	2,493	—
22	2,240	2,837	—
23	2,410	3,081	3,528
24	2,530	3,373	4,067
25 — 34	3,363	4,679	6,796
35 — 44	3,670	5,566	9,606
45 — 54	3,542	5,643	9,966
55 — 64	3,018	4,842	8,640

Chapter Six

STRUCTURE OF FAMILY INCOME

1. RELATIONSHIPS BETWEEN INDIVIDUAL AND FAMILY INCOME DISTRIBUTIONS

The analysis in Chapter Three attempts to explain where incomes originated and who in the population received an income. The statistics indicate that the greater part of the adult population in 1961 was in receipt of money incomes and that many of the income recipients were not heads of families. This was especially the case with women income recipients, the majority of whom were married, and with the younger age groups of both sexes. Therefore, the individual income distribution, in itself, is an inadequate indicator of the financial resources available to the persons who comprise a family unit. There is still a popular misconception that in the typical Canadian family the head is the sole breadwinner and that wives and children must be supported out of the head's earnings. In fact, in 1961, the majority of Canadian families had two or more family members in receipt of incomes.

The level of living that can be achieved by a family is a function of the total income available to the family and family income is considered to be the most important variable for the examination of consumer expenditures and savings or for evaluation of income adequacy. This chapter explores some aspects of the structure of family income.

DEFINITION OF THE FAMILY UNIT

The *family* for purposes of the analysis in this monograph, unless otherwise indicated, is defined to be a group of persons living in the same household and related by blood, marriage or adoption. This differs from the official definition of the family in Canadian census statistics. The *census family* is defined as consisting only of a husband, wife and any unmarried children resident in the same household or of a father or mother and unmarried children. The effect of these definitional differences on the family income distribution is discussed in detail in Appendix C.¹ Persons who live alone or live with people to whom they are not related are referred to as *persons not in families* or *unattached individuals*. The broader definition of the family, rather than the narrow census definition, has been

¹ Although the main census volumes and most special census reports tabulated family income on the *census family* definition, one special report was issued on *economic families*, that is, families more broadly defined in *Economic Families* (Cat. No. 98-524, Bull. SX-10). This contains much of the income data used in this chapter as well as statistics on the number of families by selected characteristics.

adopted for analytic purposes in this monograph because it is the definition used in the intercensal income estimates derived from sample surveys and because it is consistent with the definition in use in the United States. Use of this definition, therefore, facilitates comparisons of changes in the Canadian income distribution over time and international comparisons of income distributions.

In Chapter Three, an analysis was made of the income distribution of the adult non-farm population, in total some 10,100,000 persons. Of these, approximately 955,000 were persons living alone and not part of a family group while somewhat over 9,000,000 were family members. These 9,000,000 adults formed approximately 3,600,000 families; in these families approximately 6,400,000 adults had money income from some source.

2. INCOME DISTRIBUTION OF FAMILIES

In 1961, the income distribution of families when cross-classified by the number of persons in the family with incomes showed the following patterns.

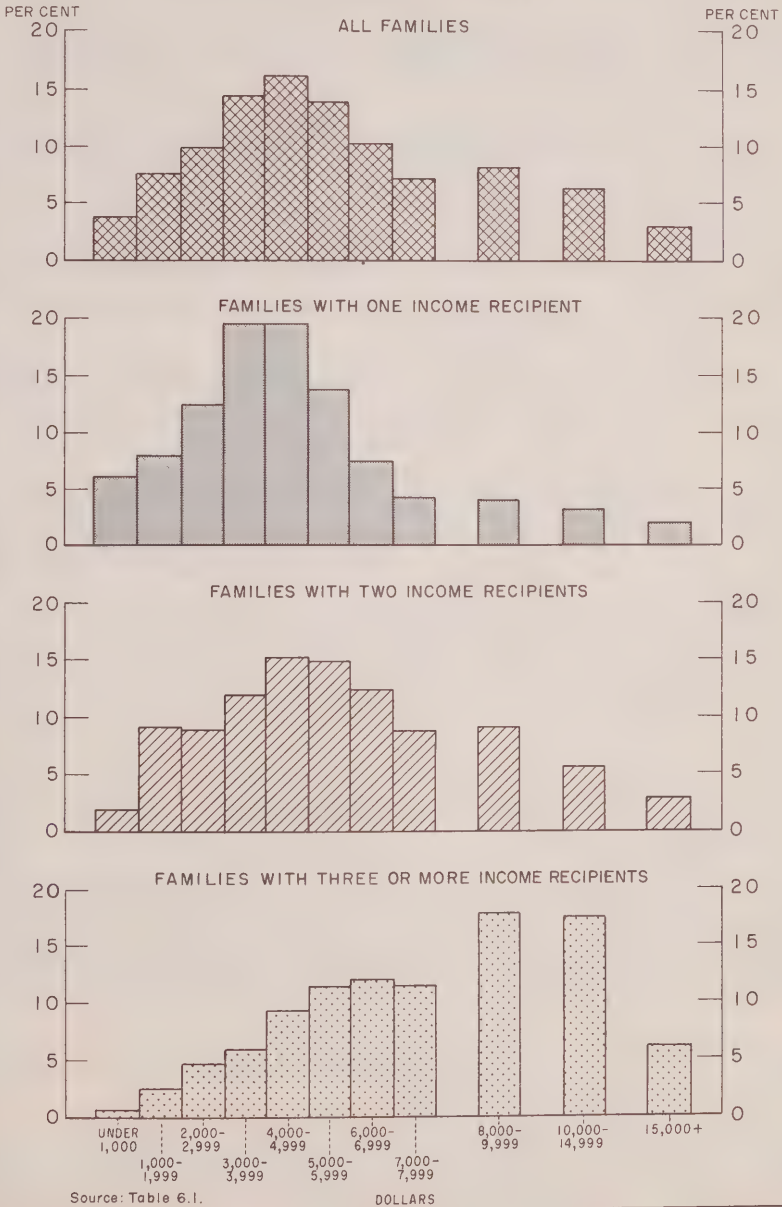
TABLE 6.1 — Percentage Distribution of Families by Size of Income and by Number of Income Recipients, Year Ended May 31, 1961

Income group	All families	Number of income recipients		
		1	2	3 or more
	p.c.	p.c.	p.c.	p.c.
No income	0.3	—	—	—
Under \$1,000	3.5	6.1	1.9	0.4
\$ 1,000 — \$ 1,499	3.6	3.6	4.8	0.8
1,500 — 1,999	4.0	4.5	4.4	1.7
2,000 — 2,499	4.6	5.8	4.3	2.1
2,500 — 2,999	5.3	6.7	4.7	2.6
3,000 — 3,499	7.0	9.7	5.6	3.2
3,500 — 3,999	7.4	9.9	6.3	3.7
4,000 — 4,499	8.5	11.1	7.4	4.4
4,500 — 4,999	7.6	8.5	7.7	4.9
5,000 — 5,499	7.9	9.0	7.8	5.5
5,500 — 5,999	5.9	4.8	7.1	5.9
6,000 — 6,999	10.1	7.4	12.3	12.0
7,000 — 7,999	7.2	4.2	8.7	11.4
8,000 — 9,999	8.2	4.0	9.0	17.8
10,000 — 14,999	6.3	3.1	5.5	17.5
15,000 and over	2.8	1.8	2.7	6.2
Totals	100.0	100.0	100.0	100.0
Average income \$	5,704	4,681	5,861	8,244
Median income \$	4,882	4,167	5,186	7,246
Families No.	3,626,964	1,576,262	1,469,975	569,959

SOURCE: DBS, 1961 Census of Canada, *Economic Families* (Cat. No. 98-524, Bull. SX-10), Table B 12.

CHART 6.1

PERCENTAGE DISTRIBUTION OF FAMILIES BY SIZE OF INCOME
AND BY NUMBER OF INCOME RECIPIENTS,
YEAR ENDED MAY 31, 1961



Only 43.4 per cent of families depended upon one income, 40.5 per cent contained two persons with incomes and 15.7 per cent had three or more. In approximately 37 per cent of families, wives had their own incomes, unmarried children received incomes in one fifth of all families and somewhat over 10 per cent of families included other relatives with incomes.²

As Table 6.1 shows, the greater the number of income recipients in the family, the less the incidence of low income. Over one quarter of families dependent upon one income had incomes below \$3,000, a ratio that dropped to one fifth in families with two income receivers and to eight per cent for those with three or more. In the income brackets \$8,000 and over, only nine per cent of families with one income recipient had incomes above this amount, the ratios being 18 and 42 per cent, respectively, for families with two or three or more persons with incomes. To a considerable extent, above-average family incomes were attributable to the presence of several income receivers in the family rather than to high income receipts by the family head; only 23 per cent of families with incomes above \$8,000 depended solely upon one income.

Statistics from sample surveys indicate that the proportion of families dependent upon one income declined over the preceding decade, attributable perhaps to the growing labour force participation of married women.³ The same statistics show that wives appeared to have replaced children as the most important secondary contributors to family income, a fact confirmed by the statistics cited in the previous paragraph.⁴ The decreasing contribution of children may have resulted from a number of factors — the increasing duration of schooling, which kept children out of the labour force longer, and the earlier age of marriage. This means that in earlier periods children entered the labour force at a younger age and remained with the family group for some years contributing to the pool of family income. The modern generation is more likely to marry shortly after the completion of schooling or even while still at school, so that children are more

² It must be pointed out again that family allowances were added to the income of husbands so that the census classified wives as having incomes only if the income were other than family allowances.

³ The surveys referred to are the Surveys of Consumer Finance described in Appendix C on data sources and definitions. In 1951, the Survey estimates showed that well over half of families had only one income recipient and that the proportion declined between 1951 and 1961. Comparisons of the Surveys with census data indicate that the Surveys show a higher percentage of families with only one income receiver, so that the 1951 data which were collected from a sample of only 5,000 family units could not be used to estimate the actual decline in the proportion of families dependent upon one income.

⁴ A classification of income receivers in the Surveys (see footnote³) data by relationships to head of family unit showed that, in 1951, 8.9 per cent of persons were wives of family heads and 20.7 per cent were sons or daughters. In 1961, 15.1 per cent of income recipients were wives and 15.4 per cent were sons or daughters.

1931 Census data on families were tabulated on the same concept as the one used in this monograph. Statistics for 1931 show that in families headed by male wage-earners only three per cent of wives had earnings while 54 per cent of all children aged 15 and over were in receipt of earnings, so that labour force participation of wives was negligible. In 1961, 21 per cent of wives in non-farm census families with a husband and wife present were in the labour force.

likely never to be contributors to the family income of their parents or to be contributors for a much shorter part of their working careers than in earlier decades.⁵

The families completely dependent upon the income of the family head were those families with only one person receiving an income and in 99 per cent of these families the income recipient was the family head. In families with two, three or more income receivers these were the additional contributors:

TABLE 6.2 – Relatives Contributing to Family Incomes, Year Ended May 31, 1961

Contributors	Number of income recipients in family	
	2	3 or more
	p.c.	p.c.
Wives	66.4	66.6
Unmarried children	21.6	66.8
Other relatives	12.2	38.1

SOURCE: Unpublished data from 1961 Census of Canada.

These statistics confirm that wives were second in importance to family heads as contributors to family incomes. In two thirds of families with multiple income recipients, the wives had incomes.

The following two tables give some indication of the relative amounts of income which the various family members added to the income resources of families. Table 6.3 shows the income received by heads of families, with male and female heads shown separately; Table 6.4 shows the income distribution of other family members. Only a small fraction of families, less than 10 per cent, consisted of families headed by women. Heads of families, of both sexes, had average incomes higher than the average incomes of all male or all female income recipients. Heads of families included a lower proportion of the youngest and oldest age groups than did the total adult population. Women heads of families, however, still had extremely low incomes in their own right. In fact, in such families the incomes of other family members usually exceeded that of the family head and this suggests that in families with women heads the head might be largely supported by other relatives rather than the reverse.

⁵ Census statistics indicate that the absolute number of unmarried children aged 25 and over living with their parents declined between 1956 and 1961. This means that there were relatively fewer adult children per family in 1961 than in 1956, the result perhaps of earlier marriage or of lower birth rates in the 1930s. Similar statistics are not available from earlier censuses.

**TABLE 6.3 — Percentage Distribution of Incomes of Heads of Families^a
by Size of Total Income, Year Ended May 31, 1961**

Income group and item	Male heads	Female heads	Total
	p.c.	p.c.	p.c.
No income	0.8	7.7	1.3
Under \$1,000.	7.3	38.8	9.8
\$ 1,000 — \$ 1,499	4.1	12.4	4.7
1,500 — 1,999	4.5	9.8	4.9
2,000 — 2,499	5.7	8.5	5.9
2,500 — 2,999	6.6	6.1	6.5
3,000 — 3,499	9.7	5.1	9.3
3,500 — 3,999	9.9	3.5	9.4
4,000 — 4,499	10.9	2.3	10.2
4,500 — 4,999	8.3	1.4	7.8
5,000 — 5,499	8.4	1.1	7.8
5,500 — 5,999	4.5	0.7	4.2
6,000 — 6,999	6.8	0.9	6.4
7,000 — 7,999	3.8	0.5	3.6
8,000 — 9,999	3.7	0.5	3.4
10,000 — 14,999	3.0	0.4	2.8
15,000 and over	2.0	0.3	1.8
Totals	100.0	100.0	100.0
Average income of head \$	4,609	1,743	4,386
Median income of head \$	4,064	1,141	3,904
Average income of family \$	5,833	4,187	5,704
Median income of family \$	4,981	3,382	4,882
Families No.	3,343,756	283,208	3,626,964

^a The Census follows certain conventions in designating the head of family. Where married couples are present the husband is always the head. Where a household consists of one parent and unmarried children, the parent is always the head even if the household is maintained by the children. As a result, the head of family is not necessarily the main family income receiver.

SOURCE: DBS, 1961 Census of Canada, *Economic Families* (Cat. No. 98-524, Bull. SX-10), Table B 9. This table was adjusted to include heads of families with no income; there were 26,064 male heads and 21,752 female heads with no income.

TABLE 6.4 — Percentage Distribution of Incomes of Relatives^a by Size of Total Income, Year Ended May 31, 1961

Income group	Wives	Unmarried children	Other relatives
	p.c.	p.c.	p.c.
Under \$500	29.8	26.0	11.6
\$ 500 — \$ 999	22.7	15.2	29.6
1,000 — 1,499	10.8	11.0	11.1
1,500 — 1,999	8.1	9.6	8.5
2,000 — 2,499	8.4	10.8	9.0
2,500 — 2,999	6.2	7.7	6.9
3,000 — 3,499	5.6	7.3	7.4
3,500 — 3,999	3.1	4.3	5.0
4,000 — 4,999	2.8	3.5	6.2
5,000 and over	2.7	4.6	4.7
Totals	100.0	100.0	100.0
Average income \$	1,486	1,738	1,710
Median income \$	946	1,400	1,396

^aThese statistics are for the wives, unmarried children and other relatives of heads of households rather than heads of families, although the differences between the two categories would not be great.

SOURCE: DBS, 1961 Census of Canada, *Incomes of Individuals* (Cat. No. 98-501), Table A 7.

The following statistics summarize the upward shift in family incomes when the total family income is compared with the income of the head.

TABLE 6.5 — Quartiles and Medians — Incomes of Heads and Family Income

Item	Income of head	Family income	Ratio of family to income of head
	\$	\$	
First quartile	2,364	3,264	138.1
Median	3,904	4,882	125.1
Third quartile	5,332	6,930	130.0
Averages	4,386	5,704	130.0

SOURCE: Calculated from Tables 6.1 and 6.3.

If quartiles are compared, the greatest change is found to occur in the first quartile; the upper limit of the first quartile in family income is approximately 38 per cent higher than the first quartile income of heads of families. Average incomes rose by 30 per cent.

As Table 6.4 shows, although wives were much more frequent contributors to family income, the average contribution per person of children and other relatives in the family was greater. However, the effect of wives' incomes on family spending and saving habits might be quite different from the effect of incomes that accrued to other family members. A wife's income is more likely to be a permanent component of family income while the income of unmarried children might be a transitory addition to family resources. When children leave home the income is no longer available to the household and, even while children remain with their parents, the probability is that children are much more likely to maintain a separate control on all or part of the disposition of their own incomes. The departure of children, then, might not affect the real incomes of the parents.

Elderly relatives such as widowed parents of the head or of his wife constituted the majority of other relatives present in family groups; almost two thirds of such persons were 55 years of age or older. The incomes of these persons were relatively low. Families consisting only of a husband, wife and unmarried children might be termed "normal" families; families with other categories of relatives present might be designated as "doubled-up" families. The income and demographic characteristics of persons who move in with relatives suggest that where doubling-up occurs inadequacy of income is likely an important factor.⁶ Their membership in a family is more likely to be permanent than is that of unmarried children. The major benefits of living together might accrue to the person moving in with a related family group rather than to the family unit that acquires the person as a member. In fact, where persons who have little or no income double-up with a related family, the relatives might experience a decline in their level of living by adding another person to the family unit. There is some evidence that in postwar years with the improvement in real incomes and with the introduction of universal pension payments to the aged the proportion of persons (and families) doubling-up has been decreasing. If the income position of the older population continues to improve it could be expected that the higher income would be used to set-up a separate household.⁷

EFFECT OF WIVES' EARNINGS ON FAMILY INCOME

The entry of married women into the labour force in substantial numbers is a recent phenomenon in Canada. Labour force participation of married women rose substantially during the Second World War period but at the end of the War the

⁶ The statistics indicate that approximately one sixth of such relatives had no money income.

⁷ Some aspects of the living arrangements of the older population are discussed in the paper presented by the author to the Special Committee of the Senate on Aging. See *Proceedings of the Special Committee of the Senate on Aging, No. 18*, The Senate of Canada, Oct. 22, 1964, Queen's Printer, Ottawa, 1964. This subject is also discussed further in Chapter Nine of this monograph.

majority withdrew to return to full-time housekeeping. As mentioned in the earlier chapters, in the 1950s there was a movement back into the labour force on the part of married women and this accounted for most of the growth in the female labour force between 1951 and 1961.

The employment of married women is a subject that arouses considerable controversy. When unemployment rises, suggestions promptly appear that one partial solution to unemployment is the withdrawal of married women from the labour force to open up jobs for the unemployed. An examination of the characteristics of the unemployed and of the employment patterns of the female labour force suggests that only a small proportion of the unemployed in periods of high unemployment could, in fact, replace the married female labour force. Other arguments advanced against the employment of married women is the disruptive effect upon the family, especially young children, of having the wife or mother absent from the home. The trends since 1951 suggest that the employment of married women has become a permanent feature of the labour force and that the time may come when it will include the majority of the married women.

A study of the participation patterns of married women reached the conclusion that family composition was a more important influence upon the participation of married women than any other factor.⁸ Women were most likely to work if there were no children living at home and least likely to work if there were children at home of pre-school age, or under age six. The income of the husband was also a factor although when age of wife and family composition were taken into consideration the behaviour in respect to participation seemed to change most when the husband's income was above \$7,000. For husbands' incomes below that level, family composition and the age of the wife appeared to be more important explanations of participation rates.

It may be interesting to examine what the effect on family income would have been in 1961 had wives remained completely outside the labour force during the year. Table 6.6 presents statistics on the family income distributions of families with both husband and wife present, including and excluding the amount earned by the wife as a result of employment. The table shows the total income distribution of all families headed by husbands and wives and the income distribution for families with wives in the labour force and without wives in the labour force.⁹ The final columns of figures show the incomes of all husband-wife families excluding wives' earnings and the incomes of families with wives in the labour force excluding wives' earnings.

⁸ See Sylvia Ostry, *The Female Worker in Canada*, published in the series of Labour Force Studies in the 1961 Census Monograph Program.

⁹ These are families where the wife was in the labour force at census time or indicated that she was in the labour force during the previous 12 months.

TABLE 6.6 — Percentage Distribution of Husband-Wife Families by Size of Family Income, Including and Excluding Earnings of Wives, Year Ended May 31, 1961

Income group	All families	Total family income		Family income excluding wives' earnings	
		With working wives	Without working wives	All families	With working wives
	p.c.	p.c.	p.c.	p.c.	p.c.
Under \$1,000	2.9	1.2	3.6	3.9	4.4
\$ 1,000 — \$ 1,499	3.2	1.2	3.8	3.7	3.0
1,500 — 1,999	3.6	1.8	4.2	4.1	3.6
2,000 — 2,499	4.3	2.7	4.8	5.0	5.2
2,500 — 2,999	5.1	3.5	5.6	5.8	6.4
3,000 — 3,499	6.9	4.7	7.7	8.3	9.7
3,500 — 3,999	7.5	5.6	8.2	8.9	10.5
4,000 — 4,499	8.7	7.0	9.3	10.0	11.7
4,500 — 4,999	7.8	7.6	7.9	8.3	9.4
5,000 — 5,499	8.2	8.4	8.2	8.4	8.9
5,500 — 5,999	6.1	8.0	5.4	5.4	5.5
6,000 — 6,999	10.4	14.9	8.9	8.6	8.2
7,000 — 7,999	7.4	11.4	6.0	5.6	4.8
8,000 — 9,999	8.4	12.6	7.0	6.3	4.7
10,000 — 14,999	6.5	7.6	6.1	5.1	3.0
15,000 and over	2.9	1.9	3.3	2.6	1.0
Totals	100.0	100.0	100.0	100.0	100.0
Average income \$	5,839	6,387	5,652	5,359	4,739
Median income \$	5,000	5,894	4,677	4,517	4,308
Families No.	3,257,386	830,324	2,427,062		

SOURCE: Unpublished data, 1961 Census of Canada.

The earnings contributed by working wives had the effect of raising the average level of family incomes for all husband-wife families, both the average or arithmetic mean and the median by approximately \$500. The incomes of families with working wives were some 13 per cent higher than the incomes of families with wives outside the labour force. Families with wives in the labour force have lower proportions in the low-income brackets and a higher proportion in the middle-income ranges. A classification by broader income ranges shows the following pattern.

Only 10 per cent of families with wives in the labour force had incomes below \$3,000, nearly one third had incomes of \$5,000 to \$7,000, and another quarter received \$7,000 to \$10,000. In families with wives outside the labour force somewhat over one fifth had incomes below \$3,000 and one third had incomes between \$3,000 and \$5,000. Obviously, the presence of the wife in the labour force

TABLE 6.7 — Percentage Distribution of Incomes of Families With and Without Working Wives by Broad Income Groups, Year Ended May 31, 1961

Income group	With working wives	Without working wives
	p.c.	p.c.
Under \$3,000	10.4	22.0
\$ 3,000 — \$4,999	24.9	33.1
5,000 — 6,999	31.3	22.5
7,000 — 9,999	24.0	13.0
10,000 and over	9.5	9.4
Totals	100.0	100.0

SOURCE: Table 6.6.

is, for many families, the means by which families can move into middle-income brackets. For these families, withdrawal of the wife from the labour force would mean a substantial drop in family income. Chart 6.2 plots the cumulative income distributions of families with working wives including wives' earnings and excluding wives' earnings. Removal of the wives' earnings shifts the income curve sharply downward and the resulting income distribution is lower than that of families with non-working wives. Where somewhat over one third of families with wives in the labour force had incomes below \$5,000, nearly two thirds of these families would be in this bracket if wives' earnings were removed. The proportion with incomes above \$7,000 would drop from 33.5 per cent to 13.5 per cent. Average and median incomes would be lower by some \$1,600. The proportion of families with low family incomes, under \$3,000, would be approximately the same as for families with non-working wives, but the proportion of families whose incomes would fall between \$3,000 and \$5,000 would be greater than in the case of families with wives who do not work. This may be a reflection of the point made previously that participation rates drop when husbands' incomes rise, so the higher the income of the head the less likely the wife is to work. Husbands in families with non-working wives would thus have higher average incomes.

3. FAMILY INCOME CYCLE BY AGE OF FAMILY HEAD

The previous sections have commented upon the importance to the family of additional income receipts by relatives other than the family head. The possible number of income recipients in a family is a function of family size, especially of the number of adults present, and family size in turn, especially the adult-children combination in a family, is related to the age of the head of family; the older the head, the more probable it is in larger families that the other family members are adults rather than dependent children and hence potential labour force participants.

CHART 6.2

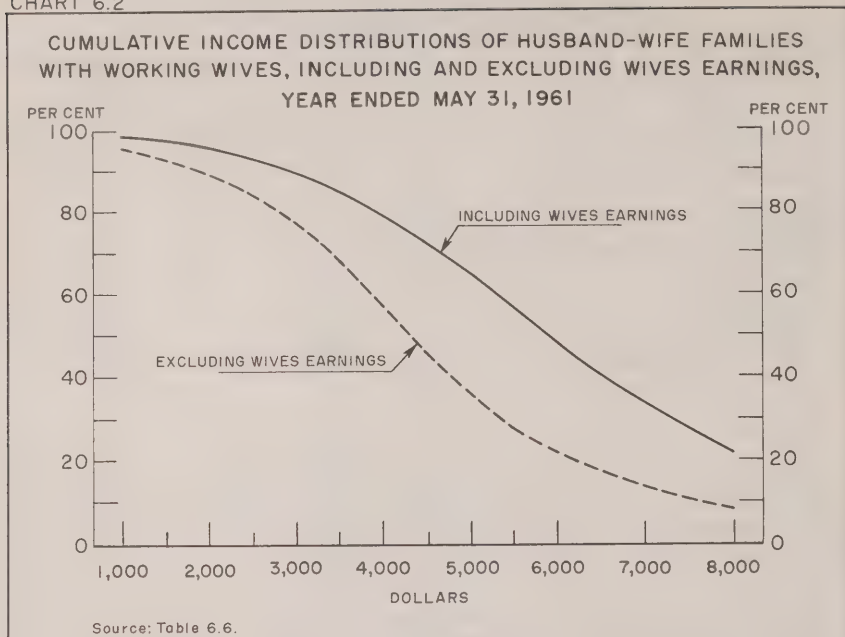


Table 6.8 shows the family-income distribution by age of family head. The pattern in 1961 was one of rising incomes until the heads of families reached middle age and then declining incomes into old age. Average family incomes for families with heads over age 70 were similar to the average incomes of families with very young heads, although median incomes were much lower. As the analysis in Chapter Three shows, average incomes of males rose until a peak was reached between the ages of 35 and 44, declined somewhat over the next ten years and subsequently declined more sharply. Since the head is the main contributor to family income, the family income profile, to a considerable extent, must be a reflection of the income profile of heads of families. However, the other important element is family composition.

As Chart 6.3 shows, there was less skewness evident in the family income distributions by age of family head than in the male income distribution by age as discussed in Chapter Three. Although younger families, especially those with heads under age 25, had lower incomes than families with heads between ages 35 and 64, the disparity in family income was not as great as in individual incomes. Most family heads would probably be full-time members of the labour force and thus have higher incomes than the age group as a whole. However, the younger the family, the more equally distributed the income; the disparities between median and average incomes increased as the ages of the family heads increased. The

differences in average incomes by age group were substantially less than the differences in median incomes.

TABLE 6.8 — Percentage Distribution of Incomes of Families by Size of Income and by Age of Head, Year Ended May 31, 1961

Income group	Age of head						
	Under 25 p.c.	25 — 34 p.c.	35 — 44 p.c.	45 — 54 p.c.	55 — 64 p.c.	65 — 69 p.c.	70 and over p.c.
Under \$1,000	4.6	2.7	2.6	3.0	5.0	9.6	6.8
\$ 1,000 — \$ 1,499 . .	3.1	1.9	1.8	2.0	3.4	8.0	15.8
1,500 — 1,999 . .	4.2	2.5	2.4	2.6	4.2	8.9	13.0
2,000 — 2,499 . .	6.8	4.0	3.3	3.6	4.9	7.8	8.8
2,500 — 2,999 . .	8.5	5.4	4.4	4.3	5.2	7.3	7.3
3,000 — 3,499 . .	11.1	8.0	6.5	5.8	6.9	7.3	6.7
3,500 — 3,999 . .	11.2	9.0	7.4	6.4	6.8	6.5	5.7
4,000 — 4,499 . .	11.3	10.9	9.1	7.3	7.2	6.2	5.1
4,500 — 4,999 . .	8.6	9.5	8.5	6.8	6.3	5.1	4.6
5,000 — 5,499 . .	7.6	10.1	9.3	7.3	6.3	4.5	3.7
5,500 — 5,999 . .	5.5	6.7	6.9	6.0	5.0	3.7	3.3
6,000 — 6,999 . .	8.7	10.9	11.8	11.1	8.9	6.3	4.9
7,000 — 7,999 . .	4.6	7.1	8.1	8.8	7.1	4.3	3.6
8,000 — 9,999 . .	3.1	6.7	9.0	11.1	9.2	5.7	4.5
10,000 — 14,999 . .	1.0	3.6	6.2	9.8	9.1	5.5	4.2
15,000 and over . . .	0.3	1.2	2.8	4.2	4.4	3.2	2.0
Totals	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Average income. . . \$	4,288	5,261	6,007	6,607	6,177	4,882	4,156
Median income . . . \$	4,022	4,795	5,215	5,575	5,008	3,585	2,884
Families No.	149,134	831,742	919,759	757,157	491,119	178,408	299,645

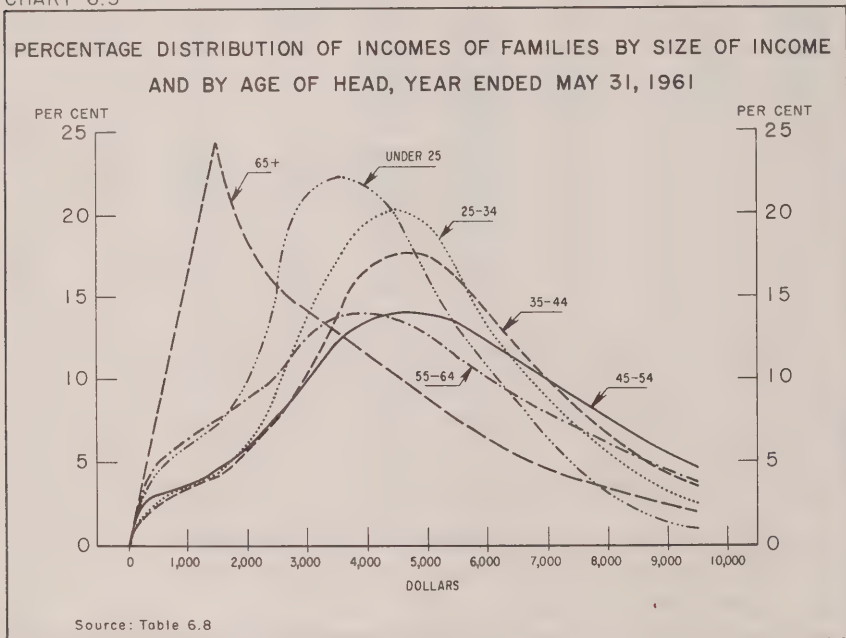
SOURCE: DBS, 1961 Census of Canada, *Economic Families* (Cat. No. 98-524, Bull. SX-10), Table B 1.

INCOMES OF HUSBAND-WIFE FAMILIES

The following analysis is restricted to examining the income cycle of families in which both a husband and wife are present because families headed by women have different income patterns. Table 6.9 is a digest of selected income characteristics of families by age of family head. The data confirmed, within the context of family income, the family income cycle that could be inferred from the discussion of the characteristics of individual income recipients in Chapter Three. In very young families, those with heads under age 25, wives tended to continue working immediately after marriage; somewhat over half of these families had two or more persons in receipt of incomes. During those years when families had very young children, where heads of families were between ages 25 and 44, there was

some decline in the labour force participation of married women, especially when there were children of pre-school age in the family. This is the period when families most frequently have to depend entirely upon the income of the family head; in the majority of families with heads in these age groups, the head was the only family member in receipt of an income. The data also confirmed that the level of the head's income had an effect on the labour force participation of the wives. In the age groups below 45 the wife was the main secondary contributor and for most wives earned income was the significant source of income. In these younger age groups, the incomes of heads of families where there were additional income recipients were lower than the incomes of heads of families where the head was the sole family member with income.

CHART 6.3



When the head reaches middle age, children become important as additional contributors to family income and their entry into the labour force may be less influenced by the head's income than is the case with wives. In the stage of the family life cycle when children were in the labour force there appeared to be no relationship between the income of the family head and the employment of other family members. It should perhaps be pointed out that income recipients and income earners are not necessarily synonymous and that persons in receipt of incomes may receive them from sources other than employment. However, in families where the head was under age 65 and where wives and unmarried children

had incomes, the proportion of wives and children with incomes who were not receiving their incomes from working was probably not very significant. It might be reasonably safe to assume that in younger families the distribution of families by the number of income recipients might be very similar to the distribution of families by number of family members in the labour force. After the age of 65 incomes received by family heads and their wives more usually were a reflection of unearned income receipts and only the incomes of unmarried children were the result of labour force participation.

TABLE 6.9 — Number of Income Recipients in Families, Average Income of Head and Average Family Income, by Age of Head,^a Year Ended May 31, 1961

All families	Age of head						
	Under 25	25-34	35-44	45-54	55-64	65-69	70 and over
Income recipients —							
1 p.c.	45.2	60.9	54.1	32.3	34.7	37.1	18.2
2 p.c.	52.2	35.5	35.7	38.7	40.0	44.8	62.6
3 or more p.c.	2.6	3.5	10.2	29.0	25.3	18.1	19.3
Totals p.c.	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Average income of head ^b and of family by number of income recipients —							
1 recipient —							
Head \$	3,486	4,723	5,468	5,177	4,399	3,208	2,487
Family \$	3,497	4,726	5,473	5,197	4,461	3,301	2,503
2 recipients —							
Head \$	3,353	4,429	5,229	5,174	4,756	3,534	2,322
Family \$	4,977	6,131	6,739	6,747	6,450	4,978	3,401
3 recipients or more —							
Head \$	3,286	4,014	4,850	5,226	4,657	3,230	2,141
Family \$	7,752	7,991	7,903	8,853	9,064	7,988	6,532
All families							
Head \$	3,411	4,594	5,319	5,190	4,607	3,358	2,317
Family \$	4,381	5,340	6,159	6,815	6,339	4,868	3,982

^a These data are for husband-wife families only; families with female heads or with wife absent are excluded.

^b Aggregate income of family heads averaged over all family heads.

SOURCE: Unpublished data from 1961 Census of Canada.

Tables 6.10 and 6.11 provide some indication of the stages in the family life cycle when wives and children make contributions to the family income and of the extent of their respective contributions. For younger families, where heads were under 35 and where there were two incomes in the families, the wife was the contributor. Families were most dependent upon the income of the husband when heads were aged 35 to 44 when the income of family heads averaged 86 per cent of all family income. Beyond that age, the income of the head as a proportion of total

family income declined steadily until, for families with heads over age 70, only 60 per cent of family income was that of the head. In the initial period after marriage, the data suggest that wives may help substantially when the family is first getting started — approximately 19 per cent of family income was the income of the wife for families with heads below age 25.¹⁰ Children began to make some contribution when the head was in his early 40s and children with incomes were most frequently present in families with heads aged 45 to 54 when the proportion of such families was equal to the proportion of families in which wives had incomes. After heads were over age 55 the proportion of families with children receiving incomes declined although, surprisingly, nearly one fifth of families in the oldest age groups still had unmarried children contributing to family income. Table 6.10 reinforces the conclusions reached earlier, that although unmarried children were less frequent contributors to family income, their contributions, where they occurred, were larger on average. In aggregate, when they started working in significant numbers they brought in more income to the family than did their mothers. Their earning ability might be greater and more of their employment might be full-time. The incomes of wives in the oldest age groups consisted largely of pensions rather than earnings and the size of such receipts was low relative to children's earnings.

TABLE 6.10 — Percentage of Families with Wives and Unmarried Children in Receipt of Income, by Age of Head of Family, Year Ended May 31, 1961

Age of head	Wives	Unmarried children
	p.c.	p.c.
Under 25	52.6	
25-34	35.7	0.5
35-44	34.1	7.5
45-54	39.4	39.4
55-64	39.1	29.6
65-69	45.4	23.4
70 and over	74.2	17.3
Totals	39.9	18.2

SOURCE: Unpublished data from 1961 Census of Canada.

The conclusion must be drawn that the number of family members with incomes is a very important explanation of family income differences by age of head. It may be useful, therefore, to standardize on the number of income

¹⁰ Perhaps one qualification should be made to the statistics on wives' incomes for the younger age groups. The census statistics do not reconstruct family income but consider that total family income consists of the combined annual incomes of all family members who are in the family at the census date. This means that in the case of newlyweds the income reported may be only partially the income received by the couple after their marriage; some of the income may have been earned when both were still single. This treatment of income is also an explanation for some cases of no income among families. For example, if a woman is recently widowed and the husband died prior to census enumeration the family may be shown as having no income if the woman had no income in her own right during the year; in fact, the family would have had the husband's income during the period he was alive.

recipients per family at different stages of the family life cycle to see how much of the age-income differentials might be caused by variations in the number of income recipients. Table 6.12 shows what average family incomes would be by age of head if, within age groups, the proportion of families with one, two, three or more income recipients were the same as for all families combined.

TABLE 6.11 — Percentage of Family Income Received by Head, Wife and Unmarried Children, by Age of Head of Family, Year Ended May 31, 1961

Age of head	Head	Wives	Unmarried children
	p.c.	p.c.	p.c.
Under 25	77.9	19.3	
25-34	86.0	10.9	0.1
35-44	86.2	8.8	2.5
45-54	75.7	9.0	12.0
55-64	71.8	8.7	15.2
65-69	68.5	10.6	15.1
70 and over	60.3	17.9	14.7
Totals ^a	79.6	10.1	7.0

^a Do not add to 100 per cent; the difference represents income of other relatives in the family such as widowed parents, etc.

SOURCE: Unpublished data from 1961 Census of Canada.

TABLE 6.12 — Average Family Income by Age of Head, Unstandardized and Standardized for the Number of Income Recipients, Year Ended May 31, 1961

Age of head	Average family income	
	Unstandardized	Standardized
	\$	\$
Under 25	4,381	4,755
25-34	5,340	5,794
35-44	6,159	6,351
45-54	6,815	6,384
55-64	6,339	5,977
65-69	4,868	4,707
70 and over	3,982	3,492

SOURCE: Calculated from Tables 6.1 and 6.9.

Standardizing on the number of income recipients narrows the differences between family incomes when heads are in the working-age groups. In fact, most of the differences in family incomes for families with heads aged 25 to 64 appeared to be caused by variations in the proportion of family members with income at different stages of the family life cycle; where standardized averages dropped relative to unstandardized averages, families had an above-average number of income recipients and *vice versa*. For the youngest age group, lower incomes were

probably more attributable to the lower earning power of young family heads than to the higher proportion of one-income recipient families. At the other extreme, families with heads aged 70 and over, the statistics suggest that incomes of these families relative to younger families would decline if the average number of income recipients per family were lower.

4. FAMILY INCOME BY LABOUR FORCE CHARACTERISTICS OF FAMILY HEAD

Although the data analyzed in the previous sections show the importance to family income of secondary contributors, they also demonstrate that the head of the family was usually the most important contributor to family income; even in families with three or more income recipients the income of the head, on average, accounted for over one half of family income. The earning ability of the head and the income accruing to the head from other sources, such as investments or pensions, were still the major determinants of the level of family income, especially for those families with only one or two income recipients. It would appear, then, that variations in family income should be correlated with the characteristics of the family head as well as with the family life cycle.

Ideally, family income data should be available in sufficient detail to allow a segregation of all the relevant influences; for example, the number of heads by age, occupation and schooling of head, their income, the number of other income recipients in these families and their income. This would permit a more adequate analysis of how much of family income differentials were attributable to the characteristics of the head and how much were attributable to other family members. The incomes of heads of families were not cross-classified by the demographic and other characteristics of the head; only total family income was available on this basis. Data were tabulated on the number of income recipients or earners only by the age and sex of the family head and by no other characteristics.

TABLE 6.13 — Average Incomes of Males, by Age Group, Year Ended May 31, 1961

Age group	All males	Married males
	\$	\$
15-24	1,972	3,289
25-34	4,273	4,516
35-44	5,081	5,256
45-54	4,977	5,148
55-64	4,393	4,594
65-69	3,163	3,366
70 and over	2,071	2,248

SOURCE: DBS, 1961 Census of Canada, *Incomes of Individuals* (Cat. No. 98-501) Table A 5.

As Table 3.14 indicates, most males above the age of 25 were married; in the working years the proportion ranged from 82 per cent of those aged 25 to 34 to 91 per cent of those aged 35 to 54. It can be assumed, therefore, that the income distribution of heads of families by various economic and demographic characteristics would be very similar to the income distribution of the total male population with such characteristics. An examination of male incomes by marital status shows that for each age group the income of married males was higher than the income of the single, widowed or divorced male population so that incomes of family heads would be somewhat higher than over-all male incomes. However, because the non-married male population was such a small proportion of the total male population in the younger age groups, statistics restricted to heads of families only would show much the same picture as statistics for the total population. Table 6.13 shows average income by age for the male population in total and for married males. This confirms that only in the very youngest age group were differences substantial between the incomes of the married population and of the whole population.

OCCUPATIONS

In the absence of detailed cross-classifications of the type suggested above, it is possible only to make some inferences about the relationship between family income and the income of the head for families with different characteristics. It has already been pointed out that a relationship existed between the labour force participation of the wife and the income of the husband and that the point at which participation rates declined was when the income of the husband rose above \$7,000. Husbands in these income brackets were more likely to be working in managerial and professional occupations. Further, data on family size indicate that an inverse correlation existed between average family size and average male earnings by broad occupation. The average size of family and average number of children at home were lower for families headed by persons in most occupations with higher earnings than in occupations with relatively low earnings.¹¹ Where children were present in more well-to-do families it was more likely, as well, that the children remained in school longer and hence were outside the labour force. Families with heads in occupations in the higher earnings brackets, therefore, might have a smaller proportion of working wives, a smaller number of children who might be potential earners and, where children were present, these might remain in school for a longer period and be slower in entering the labour force. The head, then, might contribute relatively more to family income than in families where the head was in an occupational category with a low earnings potential.

¹¹ Average family size by occupation of family head was not tabulated on the family concept used in this monograph but was tabulated for census families. It is safe to assume that the census family statistics are highly indicative of the results that would be obtained on the alternative concept. These show a negative relationship between average income and average family size by occupation of family head. With the exception of families headed by managers, the average number of children at home in the 15 to 18 and 19 to 24 age groups is lower for families headed by professionals and persons in other higher paying occupations than for families headed by persons in lower paying occupations.

Table 6.14 presents average family income cross-classified by occupation of family head, for families with male heads in the labour force and average earnings of the male labour force by broad occupation. The third column shows the ratio of male earnings to family income. The ranking of family income by occupation of family head is closely correlated with the ranking of average earned income of the labour force by occupation although some shifting of positions occurs. For example, lowest average earnings of the labour force were reported by farm workers but average family income of families headed by farm workers was second lowest and was higher than the family income of fishermen's families. For all occupational categories, family income was substantially higher than the income of the male labour force but the fact that differences were greatest for the lower paying occupations appeared to be partial confirmation of the probable patterns of family income suggested above. Differences between earned income of the labour force and average family income were least for those occupational groups that constituted the two top deciles of the labour force when occupations were ranked by size of average earnings.

TABLE 6.14 — Average Family Income and Average Employment Income, by Occupation of Family Head or of Worker, Year Ended May 31, 1961^a

Occupation of family head or of worker	Average family income (A)	Average employment income of workers (B)	Ratio (B/A)
	\$	\$	p.c.
Managerial	8,887	7,435	83.7
Professional and technical	9,021	7,062	78.3
Clerical	5,675	3,721	65.6
Sales	6,496	4,446	68.4
Service and recreation	5,230	3,574	68.3
Transport and communication	5,367	3,900	72.7
Farm workers	3,567	1,976	55.4
Loggers	3,910	2,502	64.0
Fishermen, trappers and hunters	3,342	2,129	63.7
Miners, quarrymen	5,541	4,437	80.0
Craftsmen, production process workers	5,458	3,967	72.7
Labourers	4,225	2,508	59.4

^aAverage income of families with heads in current labour force by occupation group or head and average income from employment of total current non-farm labour force by occupation group.

SOURCE: Column 1 from DBS, 1961 Census of Canada, *Economic Families* (Cat. No. 98-524, Bull. SX-10), Table B 11; Column 2 from *Incomes of Individuals* (Cat. No. 98-502), Table B 4.

Table 6.15 summarizes the family income distribution by occupation of family head for families with male heads in the current labour force. Although families with heads in low paying occupations were benefited substantially by the incomes of other family members, striking disparities still existed between the

Percentage distribution of family income by size of income and by occupation of family head for families with male heads in Current Non-Farm Labour Force, Year Ended May 31, 1961

Occupation	Income group										Total income	Average income	Median income
	Under \$1,000	\$1,000-1,999	\$2,000-2,999	\$3,000-3,999	\$4,000-4,999	\$5,000-5,999	\$6,000-6,999	\$7,000-7,999	\$8,000-9,999	\$10,000-14,999	\$15,000 and over		
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	\$	\$
All occupations . .	1.6	3.6	8.0	14.8	17.7	15.5	11.3	8.1	9.2	7.0	3.2	100.0	5,277
Managerial occupations . .	1.4	1.7	4.4	7.5	10.2	12.3	11.6	10.2	14.2	16.0	10.5	100.0	7,087
Professional and technical occupations . .	0.5	0.8	2.0	5.4	9.1	12.8	13.9	12.2	17.4	16.3	9.7	100.0	7,450
Clerical occupations	0.5	1.2	4.7	15.9	23.2	19.3	13.3	8.5	8.4	4.3	0.7	100.0	5,233 -
Sales occupations . .	0.8	2.1	6.1	12.4	15.4	16.2	13.6	10.2	11.8	8.6	2.7	100.0	5,815
Service and recreation occupations	1.3	3.9	10.3	18.6	21.7	16.2	9.6	6.7	7.0	3.9	0.8	100.0	4,733
Transport and communication occupations . .	1.2	3.8	10.7	18.1	20.4	15.5	10.7	7.1	7.0	4.3	1.2	100.0	4,794
Farm workers . . .	6.6	18.4	24.2	19.2	12.5	7.5	4.5	2.5	2.6	1.6	0.5	100.0	3,042
Loggers and related workers	4.8	18.5	23.2	17.6	12.9	8.4	5.2	3.2	3.4	2.1	0.7	100.0	3,199
Fishermen, trappers and hunters	11.2	23.4	23.0	15.1	8.8	5.8	4.0	2.6	3.0	2.5	0.6	100.0	2,670
Miners, quarrymen and related workers	1.1	2.3	6.5	16.6	21.9	19.9	12.8	7.3	7.0	3.7	0.8	100.0	5,080
Craftsmen, production process and related workers	1.0	2.9	8.1	16.7	21.3	18.2	11.9	7.6	7.4	4.1	0.8	100.0	4,999
Labourers	3.3	10.2	18.1	23.1	18.0	10.6	6.3	3.9	3.7	2.3	0.5	100.0	3,796

SOURCE: DBS, 1961 Census of Canada, *Economic Families* (Cat. No. 98-524, Bull. SX-10), Table B 11.

incomes of families whose heads were, for example, farm workers and fishermen, and families whose heads were in managerial or professional occupations. In the latter occupational categories, only minor fractions of families reported very low incomes while somewhat over one quarter had incomes exceeding \$10,000. At the other extreme, over one quarter of families of farm workers, loggers, fishermen, trappers and hunters had incomes below \$2,000. It is probable that in families whose heads had limited earning capacities other family members might also have had low levels of education and skills. For example, the statistics indicated that wives with heads in lower earnings groups had themselves lower earnings than had wives whose husbands were in middle or higher income brackets. The subject of low family income is discussed further in Chapter Eight.

As the analysis in Chapter Four indicates, earnings differed as between classes of workers with the self-employed in some occupational categories, such as the professional groups, earning more than employees while in other occupational groups, such as the managerial classes, the earnings advantages appeared to be with the employees. When family incomes were classified by occupation and class of worker of the family head the same differences were usually observable in family income. Table 6.16 shows average family income for selected occupations by employment status of the head.

TABLE 6.16 — Average Family Income, by Selected Occupation Group and Employment Status of Family Head, Year Ended May 31, 1961

Occupation	Worked for others	Self-employed
	\$	\$
Managerial	9,094	8,648
Professional	7,918	14,864
Sales	6,400	7,718
Service and recreation	5,196	5,765
Transport and communication	5,315	5,888
Fishermen, trappers and hunters	3,682	3,226
Craftsmen and production workers	5,466	5,344
Totals	5,917	7,843

SOURCE: Same as Table 6.15.

Thus, in addition to a correlation between family income and the occupation of the family head, there is also a relationship between family income and the head's occupation and class of worker or employment status.

LABOUR FORCE PARTICIPATION

As might be expected, family incomes are also affected by whether or not the head was in the labour force. Families with working heads in the current labour force had the highest income levels, families whose heads had some working experience were next and families whose heads were completely outside the labour

force during the year had the lowest incomes of all. There were, of course, a number of other possible reasons for these differences apart from the lower income, typical for non-labour force participants. Male family heads in the non-labour force would usually be in the older age groups, would probably have wives who were also in older age groups and outside the labour force and their children would be grown up and no longer at home. The income distribution of families with male heads not in the current labour force showed the following patterns.

TABLE 6.17 — Percentage Distribution of Family Income by Size for Families with Male Head Not in Current Labour Force, Year Ended May 31, 1961

Income group	In non-current labour force	Not in labour force
	p.c.	p.c.
Under \$1,000	6.2	13.1
\$ 1,000 — \$ 1,999	16.6	31.0
2,000 — 2,999	19.5	17.3
3,000 — 3,999	17.6	11.0
4,000 — 4,999	12.3	7.6
5,000 — 5,999	8.6	5.5
6,000 — 6,999	5.9	3.9
7,000 — 7,999	4.0	2.7
8,000 — 9,999	4.7	3.4
10,000 — 14,999	3.4	3.0
15,000 and over	1.1	1.5
Totals	100.0	100.0
Average income \$	4,237	3,526
Median income \$	3,397	2,296

SOURCE: Unpublished data from 1961 Census of Canada.

Families whose heads were outside the labour force received very low incomes with the median income of \$2,300, less than one half of the median income of families with working heads. The inability of the head to work is an important explanation of low family income.

5. INCOMES OF FAMILIES WITH FEMALE HEADS

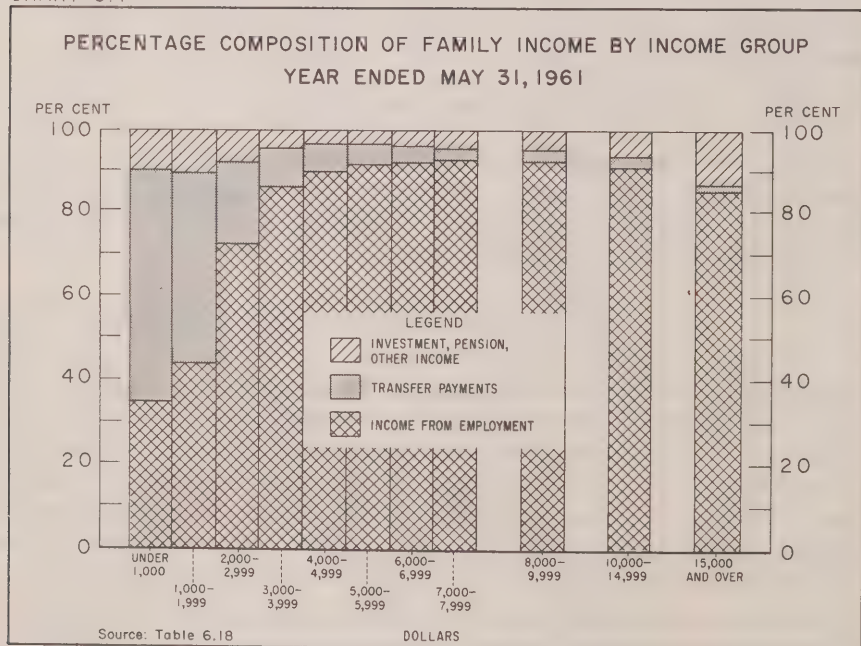
Not only were the incomes of women low, but low income was also characteristic of families headed by women. The average family income of \$4,187 was 71 per cent of the average family income of families with male heads, while the median was 68 per cent. Women heads of families themselves received incomes that averaged only 38 per cent of the incomes of male family heads. In these families, then, other family members made greater contributions to over-all family income than did the family head. Such families were more likely to be primarily dependent upon the incomes of children and other relatives of the head than upon the head.

On almost every characteristic available for study such families had patterns opposite from families with male heads. Almost 90 per cent of male family heads

were in the current or year's labour force while less than 40 per cent of female family heads worked. As might be expected from this, families with women heads depended less on earned incomes than on other sources. Nearly 90 per cent of families headed by men reported earned income as the major source of family income while only 36 per cent of families with female heads had earned income as the largest source and 41 per cent depended primarily on various types of government transfer payments, thereby suggesting that families headed by women were heavily dependent upon welfare payments.

Approximately one half of families headed by women consisted of two persons only while three quarters of them were two- or three-person families; only 45 per cent of families headed by men were this small. On a per-person basis, the disparities between family incomes, then, was not as great as the over-all income averages implied. Women heads were much older than male family heads with somewhat over one fifth 70 years of age and older while over one half were over age 55. Only one quarter of male family heads were in the older age brackets. The high incidence of older women among family heads affords a partial explanation of lower labour force participation rates and high dependence upon government transfer payments. Although, for the adult population as a whole, women had higher levels of schooling, women heads had lower levels of schooling than had male heads. Again, age might be a partial explanation because, for both sexes, the older age groups were less well educated than were younger generations.

CHART 6.4



These characteristics suggest that where women have to undertake the responsibility for keeping a family together serious income problems may exist and that the low-income status may be chronic rather than temporary. The characteristics of these families are discussed further in Chapter Eight.

6. COMPOSITION OF FAMILY INCOME

Table 6.18 classifies families by major sources of family income and presents a breakdown of the composition of family income by income level. The majority of families with incomes below \$2,000 were primarily families dependent upon government social security and welfare payments such as old age pensions, unemployment insurance and relief. The elderly were a significant proportion of this low-income tail. Approximately one half of the income of the lower income groups came from various types of government payments. Above \$3,000, over 90 per cent of families received most of their income from employment income derived from wages and salaries or from a business or professional practice; employment income accounted for at least 90 per cent of total income for families whose income was between \$4,000 and \$15,000. In summary, low-income families were heavily dependent upon government transfer payments although private means were of some significance. Families in the middle income brackets received most of their income from employment and families in the highest income brackets also were dependent mainly upon earned income although investment income was of some importance. Because certain types of transfer payments, such as family allowances and pension payments, to the population aged 70 and over were statutory payments, transfer payments were reported by all income groups although, as might be expected, such payments declined in relative importance with rising family incomes. Investment income was relatively more important among low and high income families than among families in middle income brackets. The lower income groups would include many families in the older age groups who would be partially or wholly dependent upon investment income, and the upper income families would have family members whose asset holdings might yield substantial returns.

7. INCOME OF PERSONS NOT IN FAMILIES

Nearly 1,000,000 persons resident in private non-farm households were not members of a family group. Some of these persons maintained their own households and others resided as roomers and boarders in the households of persons to whom they were not related. More women than men were in the category of unattached individuals — approximately 500,000 women and 450,000 men; most of the men were roomers or lodgers and most of the women maintained their own house or apartment. For both sexes the incomes of this segment of the population were low although, again, males had higher incomes. The income distribution for both sexes is shown in Table 6.19.

TABLE 6.18 — Major Source of Family Income and Composition of Family Income, by Income Groups,
Year Ended May 31, 1961

Source and composition	Income group										Total
	Under \$1,000	\$1,000- 1,999	\$2,000- 2,999	\$3,000- 3,999	\$4,000- 4,999	\$5,000- 5,999	\$6,000- 6,999	\$7,000- 7,999	\$8,000- 9,999	\$10,000- 14,999	\$15,000 ^a and over
Major source of family income —	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
No income											0.3
Income from employment	33.8	46.9	79.0	93.5	97.0	97.9	98.1	98.2	97.9	96.5	92.1
Transfer payments	57.2	44.7	14.2	2.9	0.9	0.5					
Investment income											
pensions and miscellaneous income	9.1	8.4	6.8	3.6	2.1	1.6	1.9	1.8	2.1	3.5	7.9
Totals	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Composition of family income —											
Income from employment	34.7	43.5	72.2	85.9	89.9	91.2	91.7	92.2	91.9	90.5	85.0
Family allowances	18.4	5.5	4.6	3.6	3.1	2.5	1.9	1.6	1.3	0.9	0.5
Old age pensions	24.2	24.9	6.2	2.4	1.4	1.1	1.0	0.9	0.9	0.7	0.4
Other government transfer payments	12.7	15.4	8.4	3.4	2.0	1.7	1.5	1.3	1.2	0.9	0.7
Investment income	6.6	5.5	4.4	2.6	2.3	2.4	2.7	3.0	3.6	5.3	11.8
Pensions and other income	3.4	5.2	4.2	2.0	1.3	1.2	1.2	1.1	1.3	1.6	1.8
Totals	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Families No.	126,080 ^a	275,339	356,471	523,557	582,892	500,277	365,439	259,580	296,089	228,936	101,536
											3,616,196 ^a

^a Excludes 10,768 families with no income reported.

TABLE 6.19 — Percentage Distribution of Incomes of Unattached Individuals by Size of Income and Sex, Year Ended May 31, 1961

Income group	Males	Females	Total
	p.c.	p.c.	p.c.
No Income.	4.8	7.3	6.1
Under \$1,000	20.1	31.2	25.9
\$ 1,000 — \$1,499	10.1	12.7	11.5
1,500 — 1,999	7.3	9.8	8.6
2,000 — 2,499	8.3	9.3	8.8
2,500 — 2,999	7.8	7.3	7.6
3,000 — 3,499	11.6	8.1	9.7
3,500 — 3,999	7.7	4.4	6.0
4,000 — 4,999	10.4	4.8	7.4
5,000 — 5,999	5.3	2.2	3.7
6,000 — 9,999	5.1	2.3	3.5
10,000 and over	1.6	0.7	1.1
Totals	100.0	100.0	100.0
Average income \$	2,777	1,946	2,339
Median income \$	2,464	1,453	1,878
Persons No.	451,470	503,572	955,042

SOURCE: DBS, 1961 Census of Canada, *Economic Families* (Cat. No. 98-524, Bull. SX-10), Table B2.

Low income levels among this segment of the population were partially a reflection of the fact that the young and the old formed a large part of the non-family population, especially among women. The young were usually persons who had moved away from their families, were still single and were at the beginning of their working careers. The old were more likely to be the widowed population left alone after the death of their spouses and whose children were grown up. The distribution of the non-family population by age group and the average income of each age group is shown in Table 6.20.

TABLE 6.20 — Percentage Distribution of Unattached Individuals and Average Income, by Age Group, Year Ended May 31, 1961

Age group	Males		Females	
	Distribution	Average income	Distribution	Average income
	p.c.	\$	p.c.	\$
Under 25	18.3	2,398	17.1	1,690
25 — 34	20.3	3,444	11.0	2,467
35 — 44	13.3	3,474	9.5	2,564
45 — 54	12.9	3,206	12.7	2,438
55 — 64	13.5	2,725	17.0	2,035
65 — 69	6.4	2,034	10.1	1,551
70 and over	15.2	1,720	22.7	1,465
Totals	100.0	...	100.0	...

SOURCE: Same as Table 6.19.

Somewhat over one half of the males and two thirds of the women were under age 25 or over age 55. For both sexes incomes of persons in the prime working ages were well above average and most of those under age 25 probably had expectations of higher incomes as they gained experience. The aged were the segment whose incomes were the lowest and who were the permanently low-income population among non-family members. Further, incomes of the aged were less equally distributed than were those of the younger age groups where less disparity existed between median and average incomes. For women aged 70 and over the median income was only \$871 and that of men was little better at \$971. Much of the older population living alone would be dependent largely upon government pension payments. Incomes of the older population are discussed in greater detail in Chapter Nine.

As might be expected from the age distribution, a substantial proportion of these individuals were completely outside the labour force during the year — approximately one quarter of the men and 40 per cent of the women reported no earned income and individuals with no labour force participation had incomes substantially lower than those of labour force participants. The average and median incomes of males in the current labour force were \$3,360 and \$3,145, respectively, and averages for those reporting no labour force participation were \$1,217 and \$703, respectively. For women, the average income of the labour force was approximately \$2,500 and the non-labour force \$1,200. Unattached individuals were a heterogeneous group. Many in the younger age group would probably marry and become part of a family unit and incomes might be only temporarily low. The widowed population would be an important segment of the older age groups and much of this population would be no longer in the labour force. Unattached individuals were not, therefore, a representative cross-section of the adult income-receiving population discussed in the previous chapters.

Chapter Seven

REGIONAL DISTRIBUTION OF INCOMES

The discussion in the previous chapters has been restricted to examining aspects of the national income distribution. A characteristic of the Canadian economy is the existence of substantial regional disparities in factors such as levels of income, extent of unemployment and educational levels of the population. Economic development is well above average in such provinces as Ontario and British Columbia but other provinces, primarily the group comprising the Atlantic Provinces, lag relative to the remainder of the country. Although real incomes have risen substantially in recent decades, as is evident from Table 7.1, statistics on the distribution of per capita personal income show that inter-regional disparities in income have not narrowed significantly since the 1920s.¹ These regional variations in income are one of the most important problems in the Canadian economy. The factors creating them are complex and varied — the productivity, skills and education of the labour force, the industrial structure, the availability of natural resources, the extent of urbanization, the age structure of the population, and many more. Analysis of some of these factors is outside the scope of the present study. This chapter is restricted to an examination of some of the demographic and economic characteristics of the population that may have an effect on the over-all level of income and the income distribution.

1. POPULATION CHARACTERISTICS

An examination of population characteristics shows substantial differences among provinces in the extent of urbanization within the province, the age distribution of the population and the educational and occupational characteristics of the labour force. A general summary of differences in regional characteristics shows that the provinces with the lowest incomes have: an above-average proportion of population resident in rural areas or in small urban areas; are likely to have above-average proportions of the population of non-working age, that is, under 15 or 65 and over; a higher concentration of the labour force in primary occupations such as agriculture and fishing or in unskilled occupations; and a labour force with below-average educational attainment.

¹ For example, see Chapter 5, *Towards Sustained and Balanced Economic Growth*, Economic Council of Canada, Second Annual Review, Queen's Printer, Ottawa, December 1965. Long-run trends are discussed by S. E. Chernick, in *Interregional Disparities in Income*, Economic Council of Canada, Staff Study No. 14, Ottawa, August 1966.

TABLE 7.1 — Personal Income Per Person, by Province,
1926, 1951 and 1961

Province	Average			Percentage of Canada average		
	1926	1951	1961	1926	1951	1961
	\$	\$	\$			
Newfoundland		568	934		50.3	59.7
Prince Edward Island	241	612	962	56.7	54.2	61.5
Nova Scotia	285	776	1,197	67.1	68.7	76.5
New Brunswick	273	742	1,064	64.2	65.7	68.0
Quebec	360	928	1,383	84.7	82.1	88.4
Ontario	486	1,325	1,843	114.4	117.3	117.8
Manitoba	462	1,135	1,513	108.7	100.4	96.7
Saskatchewan	435	1,329	1,222	102.4	117.6	78.1
Alberta	482	1,308	1,595	113.4	115.8	102.0
British Columbia	515	1,346	1,813	121.2	119.1	115.9
Canada	425	1,130	1,564	100.0	100.0	100.0

SOURCE: National Accounts.

AGE STRUCTURE AND RURAL-URBAN RESIDENCE

The distribution of population by age and rural-urban place of residence is shown in Table 7.2. All population resident in cities, towns or villages with 1,000 or more residents and that resident in the urbanized fringes of such cities is considered to be urban population. All remaining population in a province is classed as rural population. Rural population as a proportion of total population ranged from 23 per cent in Ontario to 68 per cent in Prince Edward Island. Rural population constituted over one half of the total in New Brunswick and Saskatchewan and the ratio in Newfoundland was just under one half. The provinces with higher proportions of their population resident in rural areas also contained populations with higher proportions of population in dependent age groups — under 15 or 65 and over. That is, what has been termed the “employment base” was relatively smaller in these provinces.² The population under 15 would not be in receipt of incomes while the population aged 65 and over would have incomes primarily from transfer payments, pensions and so forth. Newfoundland and Prince Edward Island had the lowest percentages of population between the ages of 15 and 64 and Ontario had the highest. Prince Edward Island and Saskatchewan had the lowest proportions of population aged 15 to 64 resident in urban areas (18.3 and 25.0 per cent, respectively) and Ontario had the highest (47.0 per cent).

² For a more detailed analysis, see analysis by Frank T. Denton, *Interregional Differences in Manpower Utilization and Earnings*, Economic Council of Canada, Staff Study No. 15, April 1966. Denton estimates, for example, that roughly half the difference in earned income per person between the Atlantic region and Canada as a whole can be accounted for by the smaller proportion of population employed.

TABLE 7.2 — Percentage Distribution of Rural and Urban Population, by Age and by Province, as at June 1, 1961

Province	Rural ^a				Urban				Rural and Urban			
	Under 15	15-64	65 and over	Total rural	Under 15	15-64	65 and over	Total urban	Under 15	15-64	65 and over	Total
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Newfoundland	21.3	24.8	3.2	49.3	20.6	27.5	2.6	50.7	41.8	52.3	5.9	100.0
Prince Edward Island	25.1	35.2	7.3	67.6	10.9	18.3	3.2	32.4	36.0	53.5	10.4	100.0
Nova Scotia	16.4	24.7	4.5	45.6	18.3	31.9	4.1	54.3	34.8	56.6	8.6	100.0
New Brunswick	21.9	27.4	4.2	53.5	16.1	26.8	3.6	46.5	38.0	54.2	7.8	100.0
Ontario	8.1	12.6	1.9	22.6	24.1	47.0	6.3	77.4	32.2	59.7	8.1	100.0
Quebec	10.7	13.5	1.5	25.7	24.7	45.2	4.3	74.2	35.4	58.7	5.8	100.0
Manitoba	13.2	19.9	3.0	36.1	19.3	38.5	6.0	63.8	32.6	58.4	9.0	100.0
Saskatchewan	20.3	31.7	5.0	57.0	13.8	25.0	4.2	43.0	34.0	56.7	9.2	100.0
Alberta	13.6	20.6	2.5	36.7	21.7	37.2	4.5	63.4	35.2	57.8	7.0	100.0
British Columbia	9.9	15.4	2.1	27.4	21.3	43.2	8.0	72.5	31.3	58.6	10.2	100.0
Canada	11.5	16.5	2.3	30.3	22.4	41.9	5.3	69.6	33.9	58.4	7.6	100.0

^a Includes rural farm and rural non-farm.SOURCE: DBS, 1961 Census of Canada, *Marital Status by Age Groups*, (Cat. No. 92-552), Table 78.

LABOUR FORCE CHARACTERISTICS

The rural-urban distribution as well as the age structure of the population is undoubtedly another factor influencing labour force participation rates. In 1961, the proportion of the population aged 15 and over in the labour force in rural non-farm areas was invariably lower than in urban areas but was lowest in the rural areas of the eastern provinces, as is evident in Table 7.3. Other factors that might affect participation rates in rural areas were lack of employment opportunities and lower skill levels. As has been pointed out, participation rates were higher for the more highly educated groups, and the higher the level of education the later the retirement from the labour force.

**TABLE 7.3 — Participation Rates of Males Aged 15 and Over,
by Province, as at June 1, 1961**

Province	Rural non-farm	Urban	Total ^a
Newfoundland	56.7	71.9	64.4
Prince Edward Island	67.8	76.9	76.1
Nova Scotia	69.2	77.0	73.5
New Brunswick	66.5	76.2	71.1
Quebec	67.9	78.2	76.7
Ontario	74.4	81.4	80.7
Manitoba	66.3	78.7	78.1
Saskatchewan	68.1	76.5	78.1
Alberta	71.8	81.0	80.6
British Columbia	71.6	74.6	74.1
Canada	69.7	79.1	77.7

^a Includes rural farm population

SOURCE: Calculated from DBS, 1961 Census of Canada, *Marital Status by Age Groups* (Cat. No. 92-552), Table 78, and *Occupational Divisions by Sex* (Cat. No. 94-508), Table 15.

The provinces with very low participation rates for males also had smaller proportions of the female adult population in the labour force; only 19 per cent of women aged 15 and over were employed in Newfoundland in contrast to 33 per cent in Ontario. The labour force was only 43 per cent of the adult population (aged 15 and over) in Newfoundland as compared with 57 per cent in Ontario and Alberta. As the income earned from employment is the main determinant of income levels, provinces in which relatively more of the population was a dependent population were almost automatically likely to have lower per capita incomes.

LEVEL OF EDUCATION AND OCCUPATIONS

The labour force in the less developed regions was also characterized by lower levels of education. Table 7.4 shows the distribution of the current male labour force by level of schooling within provinces. In four provinces — Newfoundland,

TABLE 7.4 — Percentage Distribution of Male Labour Force^a by Level of Education and by Province, June 1, 1961

Level of education	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Elementary —											
Less than 5 years	19.5	6.5	6.4	11.8	10.7	4.5	7.4	7.6	5.1	3.7	7.1
5 years and over.	34.4	46.2	35.6	45.0	41.5	37.4	33.4	41.0	33.2	26.9	37.3
Secondary —											
1-2 years	22.1	28.1	30.0	19.5	19.3	22.2	24.2	23.1	25.2	25.0	22.3
3 years	13.2	5.8	11.7	8.6	6.1	8.9	13.3	8.6	10.7	10.6	8.8
4-5 years	5.5	7.1	8.6	8.0	13.3	17.5	12.3	12.4	16.6	22.2	15.3
Some university.	3.6	3.7	3.9	3.7	4.0	3.9	5.3	4.0	4.5	6.4	4.3
University degree	1.8	2.6	3.8	3.4	5.0	5.5	4.2	3.3	4.8	5.2	4.9
Totals	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

^a Total labour force including rural farm labour force.SOURCE: DBS, 1961 Census of Canada, *Occupations by Sex Showing Age, Marital Status and Schooling, Canada and the Provinces*, (Cat. Nos. 94-509 to 94-512).

Prince Edward Island, New Brunswick and Quebec — the majority of the male labour force had eight years or less of elementary schooling. The province whose male labour force had the highest levels of education was British Columbia where only 31 per cent had eight years of elementary schooling or less but 34 per cent had four years of high school or more; thus, the proportion in that province with higher levels of education was almost three times that of Newfoundland where only 12 per cent had four years or more of secondary schooling or university.

Table 7.5 summarizes the occupational characteristics of the non-farm labour force by province and, within provinces, the composition of the rural non-farm and urban labour forces. As might be expected, the more urbanized provinces which have a more varied industrial structure had relatively more workers in the more highly skilled occupational categories such as managerial, professional and technical occupations. In Ontario and British Columbia slightly over one fifth of the male labour force was employed in these occupations in contrast to 12 per cent of the Newfoundland labour force. Between one fifth and one quarter of male workers in Newfoundland, Prince Edward Island and New Brunswick were loggers, fishermen, trappers, hunters or labourers — occupations with the lowest level of earnings. Such occupations accounted for only nine per cent of employment in Ontario. In all provinces, farm workers, loggers, fishermen and labourers were a substantial proportion of the rural non-farm labour force but these occupations accounted for much more of rural employment in the Atlantic Provinces and Saskatchewan than in Ontario, Quebec and the other western provinces, and in all provinces except British Columbia such workers reported the lowest earnings of all occupational categories.³ In British Columbia earnings in service occupations were lower than in logging and related occupations.

2. INCOME DIFFERENTIALS BY PROVINCE

RURAL-URBAN INCOME COMPARISON

Substantial disparities exist between average incomes of the rural and urban income recipients in each province but the greatest disparities exist in those provinces with the lowest over-all income levels. This means that incomes are less equally distributed within poorer regions than within the wealthier provinces such as British Columbia and Ontario.

In the Atlantic Provinces, rural male incomes averaged approximately two thirds of incomes in urban areas, with the exception of Newfoundland where the level was only 55 per cent. In contrast, in Ontario and Alberta rural incomes averaged approximately three quarters of the urban average and in British Columbia

³ It is possible that in Ontario and perhaps several other provinces the labour force resident in rural areas may, in fact, work in urban population complexes. Automobile ownership and improved highway facilities have made commuting possible over substantial distances. No data are available from the 1961 Census on the relationship between place of residence and place of employment.

TABLE 7.5 — Percentage Distribution of Male Rural Non-farm and Urban Labour Force by Occupation and by Province, as at June 1, 1961

Occupation	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Rural Non-farm —										
Managerial	5.0	7.8	7.4	6.7	8.6	10.0	10.6	12.8	11.1	9.5
Professional and technical	4.1	3.5	3.4	3.4	3.8	4.6	5.6	6.3	5.9	5.1
Clerical	2.3	2.3	3.2	3.3	3.1	3.9	2.9	2.8	2.6	2.8
Sales	2.1	3.5	3.4	3.1	3.4	3.8	2.9	3.2	3.1	3.0
Service and recreation	5.3	11.8	12.1	6.6	7.4	10.7	13.6	5.7	9.6	8.0
Transportation and communications	8.8	9.3	9.2	9.3	9.6	8.8	7.2	4.9	7.1	8.4
Farm workers	1.2	9.6	4.1	4.8	4.9	7.8	11.8	26.0	17.1	4.2
Loggers, fishermen, trappers and hunters	31.5	19.5	14.2	19.9	11.8	3.9	5.0	3.6	4.4	10.7
Miners	2.2	—	2.0	1.3	1.7	2.9	1.9	2.0	4.0	2.8
Craftsmen and production workers	24.0	23.2	29.1	28.2	30.9	32.6	26.5	24.2	25.1	33.9
Labourers	9.7	5.9	9.9	10.9	10.2	8.3	8.3	5.0	6.1	8.4
Totals ^a	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Urban —										
Managerial	10.0	14.1	10.5	12.2	10.9	12.4	12.2	14.0 ^c	14.1	13.1
Professional and technical	6.6	7.5	7.2	8.1	9.5	9.9	8.5	10.0	10.3	9.2
Clerical	9.0	8.0	7.5	8.6	9.5	9.0	10.2	8.1	8.0	6.9
Sales	5.5	7.2	6.0	7.0	6.9	6.8	7.1	8.3	8.0	7.4
Service and recreation	9.5	12.6	20.1	15.5	8.4	9.2	10.9	9.7	11.1	10.8
Transportation and communications	10.3	9.2	7.9	9.0	8.7	7.4	9.1	9.5	9.0	8.3
Farm workers	0.9	2.2	0.9	1.2	1.0	1.3	1.6	4.8	2.3	1.6
Loggers, fishermen, trappers and hunters	3.7	2.2	1.0	1.5	0.7	0.3	0.1	0.1	0.2	2.3
Miners	2.8	—	5.8	0.5	0.9	1.4	1.3	0.9	1.3	0.7
Craftsmen and production workers	31.1	27.2	25.2	27.2	34.0	33.7	29.5	25.7	27.5	31.0
Labourers	7.7	7.5	5.7	6.8	6.4	6.0	6.8	5.9	6.2	5.9
Totals ^a	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 7.5 — Percentage Distribution of Male Rural Non-farm and Urban Labour Force by Occupation and by Province, as at June 1, 1961 — concluded

Occupation	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Totals, Non-farm —										
Managerial	7.8	11.0	9.3	9.8	10.6	12.1	11.9	13.5	13.6	12.3
Professional and technical	5.5	5.5	5.7	6.1	8.7	9.1	8.0	8.8	9.5	8.2
Clerical	6.1	5.2	5.8	6.3	8.6	8.3	8.8	6.3	7.0	5.9
Sales	4.0	5.3	5.0	5.3	6.4	6.4	6.4	6.6	7.1	6.4
Service and recreation	7.7	12.2	17.0	11.6	8.3	9.4	11.4	8.3	10.3	10.1
Transportation and communications	9.7	9.2	8.4	9.1	8.8	7.6	8.7	7.9	8.6	8.3
Farm workers	1.0	5.8	2.2	2.8	1.6	1.6	3.5	12.0	5.0	2.2
Loggers, fishermen, trappers and hunters	15.7	10.7	6.1	9.6	2.3	0.8	1.0	1.3	1.0	4.2
Miners	2.5	—	4.3	0.9	1.1	1.6	1.4	1.2	1.8	1.2
Craftsmen and production workers	28.0	25.2	26.8	27.6	33.6	33.6	28.9	25.2	27.1	31.6
Labourers	8.5	6.7	7.3	8.6	7.0	6.3	7.1	5.6	6.2	6.5
Totals ^a	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

^aIncludes workers whose occupation was not stated in the Census.SOURCE: DBS, 1961 Census of Canada, *Occupation Division by Sex*, (Cat. No. 94-508), Table 15.

the ratio was 84 per cent. As the previous sections pointed out, rural population also constituted a large proportion of total population in the poorer provinces. Less dispersion existed among provinces in the urban incomes reported by males than in the rural incomes, which ranged from a low of \$1,877 in Newfoundland to \$3,631 in British Columbia. The absolute differences in urban incomes between the lowest and highest provinces was somewhat over \$1,000.

TABLE 7.6 — Average Incomes of Rural and Urban and Total Males and Females, by Province, Year Ended May 31, 1961

Province	Males			Females		
	Rural	Urban	Total	Rural	Urban	Total
	\$	\$	\$	\$	\$	\$
Newfoundland	1,877	3,420	2,665	779	1,382	1,133
Prince Edward Island	2,250	3,490	2,867	785	1,261	1,061
Nova Scotia	2,443	3,720	3,188	907	1,420	1,243
New Brunswick	2,433	3,641	3,070	966	1,434	1,255
Quebec	2,590	4,100	3,870	1,184	1,775	1,703
Ontario	3,436	4,484	4,335	1,247	1,810	1,747
Manitoba	2,750	4,155	3,884	1,071	1,594	1,521
Saskatchewan	2,754	4,051	3,608	1,121	1,585	1,454
Alberta	3,212	4,366	4,160	1,222	1,731	1,664
British Columbia	3,631	4,336	4,177	1,295	1,719	1,652
Canada	2,927	4,263	3,999	1,145	1,742	1,651

SOURCE: DBS, 1961 Census of Canada, *Incomes of Individuals* (Cat. No. 98-501), Table A2.

Women showed less variation regionally in incomes than did males and when female incomes were examined separately for rural and urban residence even less variation existed than for the province in total. Among female incomes the major differences were between the Atlantic Provinces and the remainder of Canada. Incomes within the Atlantic Provinces showed considerable similarity and this was also characteristic of incomes in the other provinces. In the Atlantic Provinces rural incomes ranged from \$779 to \$966 and average urban incomes were between \$1,261 and \$1,434. In the remainder of Canada the rural range was \$1,071 to \$1,295 and a quite narrow dispersion of \$1,585 to \$1,810 existed in the urban range.

Interprovincial differences in rural, urban and total incomes of males by province are summarized in Table 7.7 giving average male incomes for each province as a ratio of Ontario incomes which were the highest provincial incomes in 1961. These comparisons show that Newfoundland averaged only 62 per cent of the Ontario figure and that Prince Edward Island was little better at 66 per cent. Rural income levels in the Atlantic Provinces especially were a major factor in these income differences.

CHART 7.1

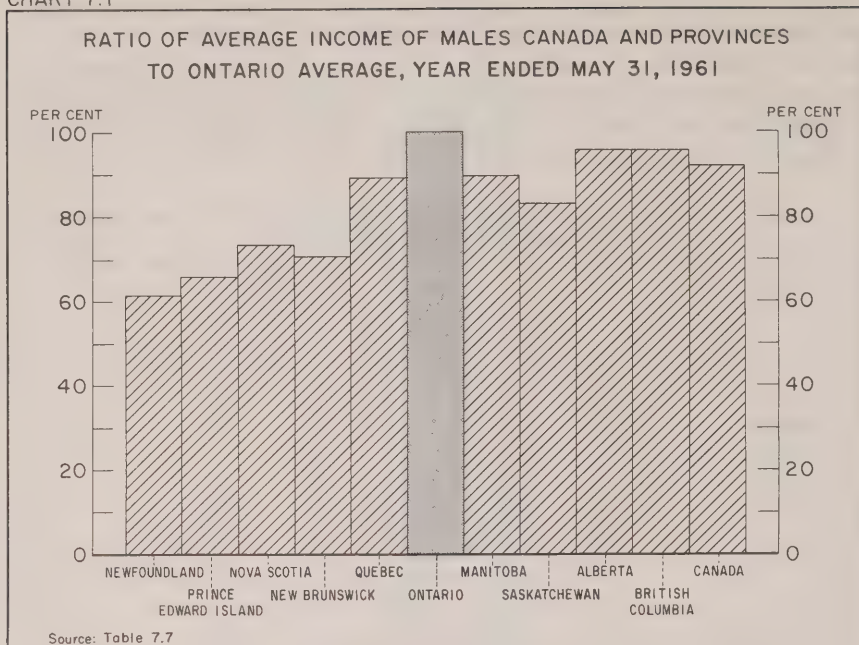


TABLE 7.7 — Ratio of Average Rural and Urban and Total Incomes of Males in each Province to Ontario Average, Year Ended May 31, 1961

Province	Rural	Urban	Total
Newfoundland	54.6	76.2	61.5
Prince Edward Island	65.5	77.8	66.1
Nova Scotia	71.1	83.0	73.5
New Brunswick	70.8	81.2	70.8
Quebec	75.3	91.4	89.3
Ontario	100.0	100.0	100.0
Manitoba	80.0	92.7	89.5
Saskatchewan	80.1	90.3	83.2
Alberta	93.4	97.3	96.0
British Columbia	105.7	96.7	96.0
Canada	85.2	95.1	92.2

SOURCE: Calculated from Table 7.6.

Much less regional variation existed in urban incomes than in rural incomes; the main contrast was between the Atlantic region and the remaining provinces. Within the Atlantic Provinces urban incomes averaged 76 to 83 per cent of the Ontario average and in other provinces the average was 90 to 97 per cent of the

Ontario level. In contrast, with the exceptions of Alberta and British Columbia, rural incomes in other provinces ranged from 55 to 80 per cent of the Ontario average. British Columbia and Alberta were the two provinces whose over-all average incomes were almost as high as the Ontario level. This suggests that in the wealthier provinces economic growth has been more balanced and that such provinces have been more successful in narrowing income differentials internally.

AGE, LEVEL OF EDUCATION AND RURAL-URBAN DISTRIBUTIONS

One method of examining the effect of a different economic or demographic population structure is to standardize incomes by different characteristics. This involves applying weights to average incomes to estimate what incomes within each

TABLE 7.8 — Average Incomes of Males Standardized for Rural and Urban Distribution, by Province, for Year Ended May 31, 1961

Canada and province	Standardized according to distribution in		Unstandardized
	Canada	Ontario	
	\$	\$	\$
Average income in —			
Canada	3,999	4,072	3,999
Newfoundland	3,115	3,199	2,665
Prince Edward Island	3,245	3,313	2,867
Nova Scotia	3,468	3,537	3,188
New Brunswick	3,402	3,468	3,070
Quebec	3,802	3,884	3,870
Ontario	4,277	4,335	4,335
Manitoba	3,877	3,954	3,884
Saskatchewan	3,795	3,866	3,608
Alberta	4,138	4,201	4,160
British Columbia	4,197	4,235	4,177
	p.c.	p.c.	p.c.
Ratio to Ontario average —			
Canada	93.5	94.0	92.3
Newfoundland	72.8	73.8	61.5
Prince Edward Island	75.9	76.4	66.2
Nova Scotia	81.1	81.6	73.5
New Brunswick	79.5	80.0	70.8
Quebec	88.9	89.6	89.3
Ontario	100.0	100.0	100.0
Manitoba	90.6	91.2	89.6
Saskatchewan	88.7	89.2	83.2
Alberta	96.7	96.9	96.0
British Columbia	98.1	97.7	96.3

SOURCE: Calculated from data in DBS, 1961 Census of Canada, *Incomes of Individuals* (Cat. No. 98-501), Table A2.

province would be if each province had the same population characteristics. This removes differences that result because individual provinces have different characteristics. Calculations were carried out to produce standardized average incomes using the Canadian distribution as a whole for weights and, in turn, weighting on the characteristics of each province. The following characteristics were used as weights for the total average income of male income recipients: (1) males by rural and urban distribution, (2) males by age and by rural and urban distribution, (3) males by level of schooling, and (4) males by age, by level of schooling and by rural and urban distribution. Tables 7.8, 7.9, 7.10 and 7.11 show the standardized results when the Ontario and Canada distribution are used as weights.

**TABLE 7.9 — Average Incomes of Males, Standardized for Age,
Rural and Urban Distribution, by Province, Year Ended May 31, 1961**

Canada and province	Standardized according to distribution in		Unstandardized
	Canada	Ontario	
	\$	\$	\$
Average income in —			
Canada	3,999	4,103	3,999
Newfoundland	3,140	3,249	2,665
Prince Edward Island	3,339	3,433	2,867
Nova Scotia	3,489	3,586	3,188
New Brunswick	3,427	3,520	3,070
Quebec	3,793	3,902	3,870
Ontario	4,245	4,335	4,335
Manitoba	3,923	4,028	3,884
Saskatchewan	3,940	4,044	3,608
Alberta	4,169	4,264	4,160
British Columbia	4,236	4,314	4,177
	p.c.	p.c.	p.c.
Ratio to Ontario average —			
Canada	94.2	94.6	92.2
Newfoundland	74.0	74.9	61.5
Prince Edward Island	78.7	78.8	66.1
Nova Scotia	82.2	82.7	73.5
New Brunswick	80.7	81.2	70.8
Quebec	89.4	90.0	89.3
Ontario	100.0	100.0	100.0
Manitoba	92.4	92.9	89.6
Saskatchewan	92.8	93.3	83.2
Alberta	98.2	98.4	96.0
British Columbia	99.8	99.5	96.3

SOURCE: Calculated from data in DBS, 1961 Census of Canada, *Incomes of Individuals* (Cat. No. 98-501), Table A5.

TABLE 7.10 — Average Incomes of Males Standardized by Level of Schooling, by Province, Year Ended May 31, 1961

Canada and province	Standardized according to distribution in		Unstandardized
	Canada	Ontario	
Average income in —	\$	\$	\$
Canada	3,999	4,073	3,999
Newfoundland	3,133	3,202	2,665
Prince Edward Island	3,036	3,099	2,867
Nova Scotia	3,338	3,408	3,188
New Brunswick	3,338	3,395	3,070
Quebec	3,955	4,030	3,870
Ontario	4,265	4,335	4,335
Manitoba	3,848	3,916	3,884
Saskatchewan	3,670	3,738	3,608
Alberta	4,032	4,101	4,160
British Columbia	4,050	4,111	4,177
	p.c.	p.c.	p.c.
Ratio to Ontario average —			
Canada	93.8	94.0	92.2
Newfoundland	73.5	73.9	61.5
Prince Edward Island	71.2	71.5	66.1
Nova Scotia	78.3	78.6	73.5
New Brunswick	78.3	78.3	70.8
Quebec	92.7	93.0	89.3
Ontario	100.0	100.0	100.0
Manitoba	90.2	90.3	89.6
Saskatchewan	86.0	86.2	83.2
Alberta	94.5	94.6	96.0
British Columbia	95.0	94.8	96.3

SOURCE: Calculated from DBS, 1961 Census of Canada, *Incomes of Individuals* (Cat. No. 98-501), Table A9.

An examination of the estimates in these tables suggests that some of the characteristics examined were important factors in partially explaining inter-regional income differentials but that some variables were more important in some regions than in others. When all of the characteristics are studied jointly on a standardized basis, income tends to cluster in this manner: Ontario, British Columbia and Alberta had almost the same levels of non-farm income; Quebec, Manitoba and Saskatchewan were lower but again with similar levels; Newfoundland, Nova Scotia and New Brunswick formed a third level, and Prince Edward Island had the lowest income level.

TABLE 7.11 — Average Incomes of Males Standardized by Age, Level of Schooling and Rural and Urban Distribution, by Province, Year Ended May 31, 1961

Canada and province	Standardized according to distribution in		Unstandardized
	Canada	Ontario	
	\$	\$	\$
Average income in —			
Canada	3,999	4,141	3,999
Newfoundland	3,529	3,692	2,665
Prince Edward Island	3,349	3,473	2,867
Nova Scotia	3,540	3,678	3,188
New Brunswick	3,576	3,701	3,070
Quebec	3,904	4,049	3,870
Ontario	4,207	4,335	4,335
Manitoba	3,902	4,039	3,884
Saskatchewan	3,927	4,071	3,608
Alberta	4,065	4,196	4,160
British Columbia	4,098	4,207	4,177
	p.c.	p.c.	p.c.
Ratio to Ontario average —			
Canada	95.1	95.5	92.2
Newfoundland	83.9	85.2	61.5
Prince Edward Island	79.6	80.1	66.1
Nova Scotia	84.1	84.8	73.5
New Brunswick	85.0	85.4	70.8
Quebec	92.8	93.4	89.3
Ontario	100.0	100.0	100.0
Manitoba	92.8	93.2	89.6
Saskatchewan	93.3	93.9	83.2
Alberta	96.6	97.0	96.0
British Columbia	97.4	97.0	96.3

SOURCE: Calculated from unpublished data.

Standardized provincial incomes in these tables are expressed as a ratio of the Ontario average. The conclusions that emerge from the statistics regarding the importance of these variables may be summarized as follows. (1) The rural-urban population distribution is important in explaining lower incomes in the Atlantic Provinces and Saskatchewan as compared with Ontario, and some of the differentials between Alberta, British Columbia and Ontario. Standardized on these characteristics, Alberta, British Columbia and Ontario levels of income differed very little. Standardizing on these factors resulted in very little change in the Quebec-Ontario income relationships. Since Quebec is almost as highly urbanized as Ontario, these results were perhaps not unexpected. (2) With age added as a variable to the rural-urban characteristics, the differences between the other provinces and Ontario narrowed further except for Quebec. However, with the exception of

Saskatchewan, the differentials narrowed by only one to two per cent. (3) Standardizing on levels of education also narrowed the income gaps between the Atlantic Provinces and Ontario and appears to account for approximately one third of the Quebec-Ontario income differential. Levels of schooling do not appear to be of any significance in explaining income differentials between the western provinces and Ontario. In fact, incomes standardized by levels of education for some of the western provinces were lower than unstandardized incomes which suggests that, in fact, the levels of schooling of the western population might, on average, be higher than in Ontario. As Table 7.4 shows, British Columbia had a more highly educated population than Ontario. Levels of schooling are somewhat less important than rural-urban distribution in explaining income differentials between the Atlantic Provinces and Ontario. (4) When incomes are standardized on age, level of schooling and rural-urban distribution, just over 60 per cent of the Newfoundland-Ontario differentials, approximately 50 per cent of the New Brunswick-Ontario differentials and somewhat over 40 per cent of differentials between Prince Edward Island, Nova Scotia and Ontario are accounted for. On a standardized basis, with the exception of Prince Edward Island, incomes were approximately 85 per cent of the Ontario average in contrast with a range of 62 to 71 per cent unstandardized. For Prince Edward Island, standardized income was 80 per cent of the Ontario average.

The persistence of substantial gaps between the Atlantic Provinces average incomes and those of the remainder of Canada suggest that there were other factors causing income differentials. The productivity of the labour force might have been lower which might have been reflected in lower wage rates for occupations or industries equivalent to those in other regions. Unemployment has persistently been more severe in the Atlantic Provinces so that indirectly the income differentials might reflect differences in duration of employment. Better data on the quality, characteristics and behaviour of the labour force probably could explain some of the residual differences that still existed after some of the more obvious characteristics were examined. The next sections consider differentials in income from employment by selected labour force characteristics.

EARNINGS BY OCCUPATION, EDUCATION AND RURAL-URBAN DISTRIBUTION

The unstandardized earnings and income differentials between provinces for the current non-farm labour force were less than the income differentials for the total male non-farm income-receiving population; unstandardized earnings in the Atlantic region ranged between 66 and 75 per cent of the Ontario average. Since these regions had a higher proportion of population in the older age groups who had low labour force participation rates as well as lower participation rates among the working age groups, greater differentials for all income recipients than for the labour force were to be expected. As earlier analysis shows, the levels of income were very much affected by labour force participation.

TABLE 7.12 — Average Earnings of Male Non-farm Labour Force, Standardized by Occupation and Rural and Urban Distribution, Year Ended May 31, 1961

Canada and province	Standardized according to distribution in		Unstandardized ^a
	Canada	Ontario	
	\$	\$	\$
Average income in —			
Canada	4,177	4,248	4,178
Newfoundland	3,345	3,400	2,962
Prince Edward Island	3,087	3,138	2,938
Nova Scotia	3,499	3,561	3,358
New Brunswick	3,430	3,483	3,208
Quebec	4,021	4,100	3,980
Ontario	4,402	4,469	4,469
Manitoba	4,130	4,201	4,136
Saskatchewan	3,914	3,990	3,967
Alberta	4,245	4,320	4,374
British Columbia	4,444	4,490	4,473
	p.c.	p.c.	p.c.
Ratio to Ontario average —			
Canada	94.9	95.1	93.5
Newfoundland	76.0	76.1	66.3
Prince Edward Island	70.1	70.2	65.7
Nova Scotia	79.5	79.7	75.1
New Brunswick	77.9	78.0	71.8
Quebec	91.3	91.8	89.1
Ontario	100.0	100.0	100.0
Manitoba	93.8	94.0	92.5
Saskatchewan	88.9	89.3	88.8
Alberta	96.4	96.7	97.9
British Columbia	100.9	100.5	100.1

^a These averages include the earnings of a small number of farm operators resident off-farm. The averages in Table 7.13 exclude the earnings of this group of workers.

SOURCE: Calculated from unpublished data from the 1961 Census of Canada.

Data are not available for standardizing the earnings and income of the current labour force on as many factors simultaneously as was possible for the total male income-receiving population. In Tables 7.12 and 7.13 the average earnings of males in the current non-farm labour force are standardized by occupation and the rural-urban distribution, and average income from employment is standardized by occupation, age and schooling. It was not possible to standardize by occupation, age, schooling and the rural-urban distribution.

Another factor affecting average earnings is the amount of employment during the year; no data are available on weeks worked for the total labour force

The only census data available regarding duration of employment are statistics on the number of weeks worked by wage-earners for wages and salaries. These statistics show that the rural labour force was much less likely to be employed the year round and to work full time, that is, 35 hours a week or more. For all of Canada, 83 per cent of urban male wage-earners reporting weeks of employment worked in 40 to 52 weeks during the preceding year, but only 64 per cent of rural non-farm male wage-earners were employed in 40 to 52 weeks. Thus, little over one sixth of urban workers worked less than 40 weeks while the ratio for rural workers was over one third or twice as much. However, these statistics must be qualified by noting that more rural than urban wage-earners might have been self-employed during part of the year.

**TABLE 7.13 — Average Income from Employment of Male
Non-farm Labour Force Standardized by Occupation, Age and Schooling,
by Province, Year Ended May 31, 1961**

Canada and province	Standardized according to distribution in		Unstandardized ^a
	Canada	Ontario	
Average income in —	\$	\$	\$
Canada	4,182	4,271	4,182
Newfoundland	3,561	3,650	2,961
Prince Edward Island	3,067	3,131	2,945
Nova Scotia	3,473	3,553	3,362
New Brunswick	3,529	3,600	3,212
Quebec	4,103	4,199	3,983
Ontario	4,386	4,471	4,471
Manitoba	4,071	4,155	4,128
Saskatchewan	3,954	4,042	4,015
Alberta	4,216	4,298	4,389
British Columbia	4,350	4,413	4,489
	p.c.	p.c.	p.c.
Ratio to Ontario average —			
Canada	95.3	95.5	93.5
Newfoundland	81.2	81.6	66.2
Prince Edward Island	69.9	70.0	65.9
Nova Scotia	79.2	79.5	75.2
New Brunswick	80.4	80.5	71.8
Quebec	93.5	93.9	89.1
Ontario	100.0	100.0	100.0
Manitoba	92.8	92.9	92.3
Saskatchewan	90.1	90.4	89.8
Alberta	96.1	96.1	98.2
British Columbia	99.2	98.7	100.4

^a See footnote to Table 7.12.

SOURCE: Calculated from unpublished data from the 1961 Census of Canada.

Among the urban labour force, little variation existed between provinces as to the proportion working 40 to 52 weeks for a normal work week of 35 hours or more, although only 70 per cent of Prince Edward Island and Nova Scotia wage-earners reported this amount of employment as compared to approximately 75 per cent in most of the other provinces. Among the rural wage-earners in four provinces — Newfoundland, Nova Scotia, New Brunswick and Quebec — fewer than half reported a full year's attachment to the labour force on a full-time basis.

Work experience varied by occupation as well as by the rural-urban residence. Workers in the occupational categories characterized by low earnings also had more irregular employment experiences than did those in occupations with higher levels of earnings. These were also occupations that constituted a larger proportion of the labour force in low income regions. For example, 92 per cent of male wage-earners in managerial occupations reported working at least 40 weeks during the year and working at least 35 hours a week. At the other extreme, less than one quarter of wage-earners in logging and fishing worked to this extent and somewhat less than half of labourers reported reasonably full employment.

EDUCATION

Another characteristic of occupational earnings within regions was that within provinces with lower incomes the differential between the earnings in occupations requiring training and high levels of education, such as managerial and professional occupations, and earnings in occupations that were manual or unskilled was greater than in higher income regions. This means that interprovincial differences in earnings were smaller for the more highly educated segment of the labour force than for the unskilled segment.

When all incomes are examined by level of education, interprovincial differences are found to be greatest for those with only elementary schooling and tend to be least for those with university degrees. Excluding Prince Edward Island from the comparison, incomes of university graduates in all other provinces were 80 per cent or more of the Ontario average. Within the Atlantic region where the proportion of university graduates was lower than elsewhere, the average incomes of university graduates were relatively much higher than the incomes of those with only elementary schooling within the region than in provinces like British Columbia. In Newfoundland, for example, the average was 3.7 times and in Nova Scotia 3.3 times as great as compared with the British Columbia ratio of 2.6 and the Ontario ratio of 2.7. Education and professional training make workers much more mobile and improve their bargaining power; it is probable that earnings within a region cannot fall too far below the levels of other parts of the country without a drain of manpower. One may cite as an example doctors in private practice whose earnings in the Atlantic Provinces appeared to reach the same levels as in a number of the other provinces such as Quebec and Manitoba.⁴ The unskilled have much less mobility, and greater inter-regional inequality existed in respect to their earnings.

⁴ Taxation data show that among doctors in private practice with taxable incomes, highest earnings are reported in Saskatchewan rather than Ontario or British Columbia.

Again, as with the income distribution of the total male population, standardizing on age and education does not explain any of the earnings differentials between the western provinces and Ontario but does narrow the differences between the eastern provinces and Ontario. Standardizing on the occupation and rural-urban distribution narrows the differentials between Ontario and eight of the other nine provinces although for the western provinces the effect is minor. For Quebec, standardizing on the rural-urban distribution as well as on age and schooling diminishes differentials. On an unstandardized basis, earnings in Prince Edward Island and Newfoundland were approximately two thirds of the Ontario level and in the other two Atlantic Provinces they were approximately three quarters. Standardized on occupation and the rural-urban distribution, they rose to 82 to 85 per cent of the Ontario average, except for Prince Edward Island. Standardizing on occupation, age and schooling raised the averages to 80 to 82 per cent of the Ontario average, again with the exception of Prince Edward Island. Since age was of minor importance in explaining away income differences for the total income distribution, it might also be of little consequence in explaining earnings differentials. The results in Tables 7.12 and 7.13 suggest that, if incomes had been weighted by occupation, education and the rural-urban distribution within provinces, most of the interprovincial differences would have been accounted for.

3. FAMILY INCOME DISTRIBUTION

In the analysis of family income in Chapter Six the relationship between incomes of the male population and the family income structure was examined. Regionally, as nationally, family incomes were substantially higher than the incomes of the married male population, although again the earning ability of the head would be the most important factor influencing the level of family income. Other important factors were family size and composition and the labour force participation or non-participation of wives.

RELATIVE INCOME DISTRIBUTION

Interprovincial family income differentials were very similar to the male income differentials discussed in the previous sections of this chapter. However, for provinces east of Ontario, average family incomes as a proportion of the Ontario average were a little higher than the average incomes of the male population while west of Ontario the average was somewhat lower. Thus, regional differentials in average family incomes were somewhat less than were average male incomes.

Family incomes in Newfoundland were, on average, some two thirds of the Ontario average while Nova Scotia and New Brunswick averages were somewhat higher; only Quebec, Alberta and British Columbia average incomes were over 90 per cent of the Ontario level. Median incomes as a ratio of Ontario incomes were lower in the Atlantic Provinces and Quebec than were average incomes while the reverse was true for the western provinces.

TABLE 7.14 — Percentage Distribution of Non-farm Families by Income Size and by Province, 1961

Income group	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Families —											
Under \$1,000	8.9	7.0	5.6	6.0	3.4	2.8	4.6	8.2	4.0	3.1	3.8
\$ 1,000 — \$1,499	9.6	8.9	6.2	6.3	3.7	2.6	4.3	6.3	2.7	3.0	3.6
1,500 — 1,999	9.3	7.8	6.3	6.9	3.8	2.9	4.1	5.3	4.0	4.8	4.0
2,000 — 2,499	9.4	9.3	7.4	8.3	4.9	3.6	4.4	5.3	4.0	4.0	4.6
2,500 — 2,999	8.6	8.4	8.1	8.2	6.2	4.2	5.1	5.7	4.5	4.3	5.3
3,000 — 3,499	8.4	10.2	8.4	9.4	8.3	5.9	7.2	7.3	6.5	5.9	7.0
3,500 — 3,999	7.5	8.1	8.7	8.8	8.3	6.7	7.8	7.4	7.6	6.6	7.4
4,000 — 4,499	6.6	7.9	8.4	9.1	9.0	8.2	8.9	7.9	8.4	8.3	8.5
4,500 — 4,999	5.4	5.7	7.3	7.0	7.3	7.9	8.0	7.0	7.9	7.9	7.6
5,000 — 5,499	5.1	5.2	6.7	5.9	7.7	8.5	7.9	6.9	8.0	8.4	7.9
5,500 — 5,999	3.7	4.7	5.0	4.5	5.2	6.5	6.1	5.2	6.3	6.6	5.9
6,000 — 6,999	5.4	5.6	7.2	7.0	8.7	11.4	10.1	9.1	11.1	11.7	10.1
7,000 — 7,999	3.6	3.4	4.8	4.2	6.2	8.5	6.8	5.8	7.6	8.0	7.2
8,000 — 9,999	4.0	3.7	5.0	4.2	7.6	9.7	7.2	6.3	8.4	8.7	8.2
10,000 — 14,999	3.1	2.8	3.4	3.1	6.5	7.4	5.2	4.3	6.3	6.1	6.3
15,000 and over	1.4	1.4	1.6	1.3	3.2	3.1	2.3	2.0	2.7	2.5	2.8
Totals	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Average income	4,050	4,154	4,570	4,406	5,654	6,167	5,422	4,892	5,791	5,778	5,704
Median income	3,250	3,422	3,960	3,778	4,664	5,306	4,725	4,285	5,025	5,125	4,882
Families	81,957	14,269	144,003	108,658	985,307	1,362,618	175,054	142,550	238,647	368,116	3,626,964

SOURCE: DBS, 1961 Census of Canada, *Economic Families* (Cat. No. 98-524, Bull. SX-10).

**TABLE 7.15 — Upper Quintile Limits of Family Income, by Province,
Year Ended May 31, 1961**

Province	Quintile			
	First	Second	Third	Fourth
	\$	\$	\$	\$
Newfoundland	1,581	2,663	3,887	5,662
Prince Edward Island	1,763	2,917	4,019	5,660
Nova Scotia	2,129	3,381	4,562	6,264
New Brunswick	2,048	3,229	4,335	5,956
Quebec	2,839	4,078	5,331	7,565
Ontario	3,331	4,696	6,018	8,063
Manitoba	2,755	4,141	5,355	7,221
Saskatchewan	2,019	3,629	4,972	6,824
Alberta	3,062	4,399	5,691	7,658
British Columbia	3,068	4,499	5,781	7,675
Canada	2,878	4,253	5,525	7,597

SOURCE: Calculated from Table 7.14.

The quintile points in the family income distribution in each province are summarized in Table 7.15. This reinforces the previous conclusions that provinces with the lowest incomes also had more unequal income distributions. The ratio of the minimum income of the top quintile was more than three times as great as the maximum income of the bottom quintile in Newfoundland, Prince Edward Island and Saskatchewan. However, although the bottom 20 per cent of families in Saskatchewan had incomes as low as those in New Brunswick and Nova Scotia, the position of families in middle and upper income brackets in Saskatchewan was relatively better than in the other two provinces. Although Ontario had the highest absolute incomes among the provinces, the dispersion between the incomes of the top and bottom quintiles was least among the provinces; the minimum of the top quintile was only 2.4 times the maximum incomes of the bottom quintile.

REGIONAL PATTERNS IN EMPLOYMENT OF MARRIED WOMEN AND FAMILY SIZE

The smaller disparity in family income regionally as contrasted with small incomes might be a reflection of differences in family size or composition and in the working behaviour of married women. Considerable regional variations existed in the extent to which married women worked. The provinces with more urbanized populations had higher participation rates except for Quebec where the proportion of married women working was the second lowest among all provinces. Newfoundland had by far the lowest proportion (only 9.4 per cent) of married women working. In provinces with low participation rates the number of young children per family was also higher on average so that participation might have been affected by the

difficulty of working because of family obligations. Participation rates of married women by province are summarized below in Table 7.16.

TABLE 7.16 — Proportion of Married Women in Labour Force, by Province, as at June 1, 1961

Province	Per cent
Newfoundland	9.4
Prince Edward Island	18.4
Nova Scotia.	17.2
New Brunswick	17.4
Quebec	14.4
Ontario	27.4
Manitoba	25.5
Saskatchewan	21.7
Alberta	25.9
British Columbia.	23.3
Canada	22.0

SOURCE: Calculated from DBS, 1961 Census of Canada, *Marital Status* (Cat. No. 92-544 Table 28, and *Occupations by Sex Showing Age, Marital Status and Schooling, Canada and Provinces* (Cat. Nos. 94-509 to 94-512), Table 17.

In Ontario and the western provinces, between 22 and 27 per cent of married women reported being in the labour force while in the Maritimes the ratio was 17 to 18 per cent. However, provinces with lower participation rates among married women were usually the provinces in which families tended to be larger in size. This means that, although wives were not as important contributors to family income, more children might be in the labour force. In Newfoundland, for example, slightly over half of all families consisted of five or more persons and in the Maritime Provinces approximately 40 per cent were this large; in contrast, in Ontario and the western provinces only 27 to 31 per cent of families were large families. In British Columbia the proportion of two-person families was twice as great as in Newfoundland. Average family size and average number of children under age 16 in each province are shown in Table 7.17.

Lower labour force participation by wives in the eastern provinces might be compensated for by greater participation of adult children so that regional differences in the number of earners per family might not, in themselves, be factors in inter-regional income differentials. In all provinces, families with two or three or more earners had incomes substantially higher than families dependent upon the earnings of one person. However, because of the gap in earnings between the Atlantic Provinces and the other provinces, in all of the Atlantic Provinces families with two members in the labour force had lower average incomes than families with only one working member in Ontario, Alberta and British Columbia. For example, in Nova Scotia average incomes of families with one working member were \$4,196 and with two working members, \$5,353; the equivalent averages for Ontario were

\$5,581 and \$6,786. Thus, families with two working members in the Atlantic Provinces did not attain the income levels of families with only one labour force participant in the wealthier provinces.⁵

**TABLE 7.17 — Average Family Size and Average
Number of Children Under Age 16 per Family, as at June 1, 1961**

Province	Average family size	Average number of children under age 16 per family
	No.	No.
Newfoundland	5.10	2.33
Prince Edward Island	4.33	1.81
Nova Scotia	4.24	1.70
New Brunswick	4.49	1.91
Quebec	4.32	1.69
Ontario	3.77	1.37
Manitoba	3.77	1.39
Saskatchewan	3.77	1.45
Alberta	3.85	1.54
British Columbia	3.67	1.34
Canada	4.03	1.53

SOURCE: Unpublished data from the 1961 Census of Canada.

RURAL-URBAN DIFFERENTIALS

As with individual incomes, the rural-urban distribution is of significance in explaining inter-regional income differences. Within urban areas, too, the greater the population concentration in an area the more probable it is that family incomes will be higher, for many reasons — the greater availability of positions requiring training and education, the greater opportunity for the employment of wives and children, improved opportunities for job mobility and the diminished likelihood of unemployment.

FAMILIES

Table 7.18 presents average family income by size of municipality within provinces. With the exception of Newfoundland and New Brunswick, family incomes, on average, in the large metropolitan areas exceeded \$6,000. The metropolitan areas, with few exceptions, are cities usually containing population concentrations of 100,000 or more. Two exceptions to this were Saint John, N.B., and St. John's, Nfld., which had populations somewhat under 100,000; although in size they were in the 30,000 to 100,000 category, they were the only cities in these provinces designated as metropolitan areas. In other provinces, family incomes in municipalities in this size group ranged from \$5,300 to approximately \$6,000; thus, family incomes in Newfoundland and New Brunswick were not out of line with

⁵ Family income distributions by number of earners and by province may be found in DBS, 1961 Census of Canada, *Economic Families* (Cat. No. 98-524, Bull. SX-10), Table B12.

income levels for municipalities of this size in other regions. Average family income in St. John's, for example, was 90 per cent of the Ontario average family income in centres with populations of 30,000 to 100,000. Similarly for smaller centres, those with populations of 10,000 to 30,000 in all provinces except Nova Scotia had family incomes averaging between \$5,000 and \$6,000. Thus inter-regional income disparities narrowed substantially when the incomes of urban population concentrations of similar size were examined separately; the greatest divergence occurred in rural incomes.

**TABLE 7.18 — Average Family Income by Size of Place of Residence,
Year Ended May 31, 1961**

Province	Metropolitan areas	Other urban centres			Rural
		30,000- 99,999	10,000- 29,999	1,000- 9,999	
	\$	\$	\$	\$	\$
Newfoundland	5,381	—	5,792	4,418	3,294
Prince Edward Island . . .	—	—	5,177	4,936	3,272
Nova Scotia	6,071	5,734	4,633	4,356	3,549
New Brunswick	5,341	5,525	5,406	4,571	3,652
Quebec	6,330	5,311	5,333	5,023	4,013
Ontario	6,771	5,999	5,735	5,323	4,863
Manitoba	6,082	—	5,249	4,389	3,780
Saskatchewan	—	5,973	5,268	4,704	3,708
Alberta	6,405	5,664	5,352	5,110	4,342
British Columbia	6,062	—	5,746	5,791	5,017
Canada	6,442	5,848	5,477	5,073	4,247

SOURCE: DBS, 1961 Census of Canada, *Economic Families* (Cat. No. 98-524, Bull. SX-10), Table B5.

**TABLE 7.19 — Average Family Income, Standardized by Place of Residence,
Year Ended May 31, 1961**

Province	Standardized on Ontario		Unstandardized	
	Average	Per cent	Average	Per cent
Newfoundland and Prince Edward Island	4,979	80.7	4,065	65.9
Nova Scotia	5,311	86.1	4,570	74.1
New Brunswick	5,012	81.3	4,406	71.4
Quebec	5,649	91.6	5,655	91.9
Ontario	6,167	100.0	6,167	100.0
Manitoba and Saskatchewan	5,498	89.2	5,184	84.1
Alberta	5,784	93.8	5,792	93.9
British Columbia	5,809	94.8	5,778	93.7
Canada	5,814	94.3	5,705	92.5

SOURCE: Calculated from same data as Table 7.18.

The data in Table 7.19 were standardized by size of municipality. Because they did not have municipalities in all size categories, Newfoundland and Prince Edward Island were combined, as were Manitoba and Saskatchewan. Family incomes standardized according to the Ontario distribution showed the following changes.

As with the incomes of the male population, much of the difference between the Atlantic Provinces and Ontario was accounted for by the greater importance of rural population in the Atlantic region; this was also a factor in lower incomes in Manitoba and Saskatchewan.

OTHER CHARACTERISTICS

Within provinces, family income distributions classified by other characteristics, such as age of the family head, level of education and occupation, had patterns very similar to the national distribution. On age, for example, in all provinces family incomes were at their highest levels when family heads were between the ages of 45 and 54. Average incomes provincially for this age group ranged from a low of \$4,494 in Newfoundland to a high of \$7,146 in Ontario. Again, the lowest incomes occurred among the youngest and oldest families. In all provinces except Newfoundland, New Brunswick and Quebec, families with heads aged 70 years and over had the lowest incomes but in the three exceptions the youngest families had the lowest average incomes. Except in Prince Edward Island, the decline in family incomes from the middle aged groups to the elderly was less in the eastern provinces than in Ontario and the western provinces; in Alberta and British Columbia, for example, incomes for families with heads aged 45 to 54 were 75 per cent higher than the incomes of families with heads aged 70 and over. In the Atlantic Provinces, with the exception of Prince Edward Island, family incomes in the same age group were less than 50 per cent higher than for the oldest group. Interprovincial income differences were less among younger families than among the elderly.

On other characteristics such as the level of education attained by the family head and the occupation of the family head, provincial patterns again followed the national patterns. Average family incomes by selected levels of schooling of the family head are shown in Table 7.21. The greater differentials between the incomes of those with university training and those with only elementary schooling in the Atlantic regions as contrasted with other regions have already been commented upon and are again evident in the data on family incomes.

By occupation, in all provinces, families of persons in managerial or professional categories had the highest family incomes and those of labourers, fishermen, farm workers and others in primary industries were usually lowest. In most provinces, families of the self-employed, on average, reported higher incomes than families whose heads were wage or salary earners. As might be expected, families whose heads did not work had much lower incomes than families whose

TABLE 7.20 — Average Incomes of Families, by Age of Head and by Province, Year Ended May 31, 1961

Age group	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Under	3,026	3,276	3,519	3,380	4,082	4,556	4,262	4,149	4,633	4,478	4,288
25 — 34	3,869	4,045	4,320	3,942	4,887	5,675	5,152	5,138	5,614	5,579	5,261
35 — 44	4,248	4,472	4,800	4,769	5,736	6,471	5,765	5,577	6,386	6,276	6,007
45 — 54	4,494	5,023	5,119	5,003	6,598	7,146	6,260	5,626	6,684	6,781	6,607
55 — 64	4,187	4,104	4,893	4,692	6,436	6,680	5,777	4,899	5,809	6,000	6,177
65 — 69	3,243	3,458	3,956	3,921	5,243	5,327	4,871	3,522	4,520	4,277	4,882
70 and over	3,018	2,966	3,681	3,454	4,637	4,524	3,827	3,051	3,833	3,811	4,156

SOURCE: DBS, 1961 Census of Canada, *Economic Families* (Cat. No. 98-524, Bull. SX-10), Table B1.

heads were employed. In all provinces, much of the low family income population within the province was found among families whose heads were not labour force participants.

TABLE 7.21 — Average Family Incomes, by Selected Levels of Schooling of Family Head, by Province, Year Ended May 31, 1961

Province	No schooling or elementary	Secondary 4 - 5 years	University Degree
	\$	\$	\$
Newfoundland	3,356	5,781	10,658
Prince Edward Island	3,277	5,517	9,025
Nova Scotia	3,624	5,887	9,442
New Brunswick	3,645	5,481	9,574
Quebec	4,679	7,005	11,207
Ontario	5,043	7,141	11,474
Manitoba	4,227	6,243	10,300
Saskatchewan	3,858	5,871	10,134
Alberta	4,574	6,387	10,976
British Columbia	4,751	6,202	10,589
Canada	4,626	6,784	11,073

SOURCE: DBS, 1961 Census of Canada *Economic Families* (Cat. No. 98-524, Bull. SX-10), Table B10.

TABLE 7.22 — Average Family Incomes, by Selected Occupations of Family Head and by Province, Year Ended May 31, 1961

Province	Managerial	Professional	Craftsmen and production workers	Labourers
	\$	\$	\$	\$
Newfoundland	7,202	7,300	4,635	3,217
Prince Edward Island	6,671	7,174	3,903	2,995
Nova Scotia	7,302	7,693	4,443	3,309
New Brunswick	6,900	7,579	4,341	3,235
Quebec	9,261	8,732	5,211	4,126
Ontario	9,293	9,212	5,781	4,536
Manitoba	8,383	8,772	5,259	4,135
Saskatchewan	7,392	8,240	4,946	4,036
Alberta	8,519	8,911	5,392	4,241
British Columbia	8,443	8,952	5,797	4,607
Canada	8,848	8,887	5,443	4,224

SOURCE: DBS, 1961 Census of Canada *Economic Families* (Cat. No. 98-524, Bull. SX-10), Table B11.

In summary, family income by selected characteristics followed the same income patterns as those of the male population and, within all provinces, the same characteristics influenced the level of income internally.

Chapter Eight

LOW INCOME AND POVERTY

1. DEFINITION OF POVERTY

"The notion of a measurable boundary marking off the range on the lower part of the income scale that can be designated substandard has crept into our thinking about size distributions of income practically unchallenged. Theorists of all persuasions utilize such a concept implicitly while proponents of various types of social policy exploit the 'poverty line' determining this measure for a given time and place, the theorist will deny the possibility of a unique answer and the propagandist will settle for any one of many solutions if the result suits his purposes."¹

Perhaps more attention has been focused on the lower end of the income distribution than on any other aspect of the income structure. In popular terms, the family units clustered at the bottom of the income scale have been termed the "poor" or the population living in "poverty". Dictionaries define poverty as "indigence, want, scarcity, deficiency, poorness or meanness", and point out that the dominant sense of present-day usage of the word is that of having little money or property. In turn, it is implicitly assumed that this also connotes deprivation in respect to various aspects of consumption — that low income is accompanied by malnutrition, inadequate health care, poor housing and so forth.

A concern with poverty, its characteristics and its implications for economic and social policy motivated much of the early research on the income and consumption patterns of families and households. A well-known study at the end of the nineteenth century collected data on incomes in York, England, and, using such statistics in conjunction with minimum budgets, developed estimates as to the proportion of the population with incomes inadequate to satisfy minimum needs.² The methodology developed in this study has influenced much of the research that has followed in the twentieth century. This study developed "a poverty line" and statistically estimated the proportion of the population living in poverty. It stated in conclusion:

"That in this land of abounding wealth, during a time of perhaps unexpected prosperity, probably more than one fourth of the population are living in poverty, is a fact which may well cause great searchings of

¹Dorothy S. Brady, "Research on the Size Distribution of Income", *Studies in Income and Wealth*, Vol. XIII, p. 30. National Bureau of Economic Research, New York, 1951.

²B. Seebohm Rowntree, *Poverty, A Study of Town Life*. Thomas Nelson & Sons, London. (No date)

heart. There is surely need for a greater concentration of thought by the nation upon the well-being of its own people, for no civilization can be sound or stable which has at its base this mass of stunted human life. The suffering may be all but voiceless, and we may long remain ignorant of its extent and severity, but when once we realize it we see that social questions of profound importance await solution. What, for instance, are the primary causes of this poverty? How far is it the result of false social and economic conditions? If it be due in part to faults in the national character, what influences can be exerted to impart to that character greater strength and thoughtfulness?"³

Examples may be readily found in many contemporary studies which, in effect, make the same statement about current conditions in North America that Rowntree made about the Britain of 1900. The characteristics of poverty may have changed but the problems of defining it, analyzing it and eliminating it have not.

Most studies concerned with the measurement of the extent of poverty are faced with the problem of defining poverty. Many studies have described eloquently the physical, social and economic manifestations of poverty – ill health, slum housing, unemployment and so forth.⁴ A satisfactory determination of the extent of poverty requires, in effect, surveys designed to measure the levels of living of the population – food consumption and its adequacy, housing conditions, the adequacy of medical care and the state of health. Such statistical data are not available and, in its absence, statisticians and others have usually fallen back upon other approaches which invariably involve the use of income levels as the primary indicator of poverty.

STATISTICAL MEASUREMENT OF POVERTY

Broadly, the various methods developed in studies can be categorized as of two varieties – the use of a fixed income point below which incomes are considered, in some sense, to be substandard or, alternatively, the construction and pricing of minimum budgets which are then compared with the existing income distribution to determine what proportion of the population has incomes inadequate to purchase the suggested budget. The use of a fixed point on the income scale such as the bottom quintile or on a family income figure of \$3,000 'as a poverty line is probably influenced by the fact that families below these points receive a share of aggregate income which is small in relation to their numbers and so they must be "poor". The rationale for the budget approach has been expressed this way: "Whether those at the bottom of the income distribution are or are not poor depends on whether their income level is or is not, by objective standards, sufficient to cover their needs."⁵

³*Ibid.*, p. 360.

⁴For example, Michael Harrington in *The Other America: Poverty in the United States*, The Macmillan Company, New York, 1963, a study that has influenced government policies in the United States.

⁵Oscar Ornati, *Poverty Amid Affluence*, The Twentieth Century Fund. New York, 1966, p. 16.

A budget approach to the examination of the adequacy of income is superior to the use of income criteria that ignore differences in family characteristics and, implicitly, in family needs. The use of a family income figure such as \$3,000 does not take into account that family living requirements are affected by the size of family, its age composition, its place of residence such as farm or urban, and the price levels in the area. In the United States, although, initially, specific income figures were used to designate poverty, the deficiencies of this criterion resulted in the adoption of budget data as indicators of poverty or income inadequacy.⁶ Other recent studies have also used a budget criteria for defining poverty.⁷

The budget-income approach has its own limitations as a statistical measure of poverty. In a recent U.S. Bureau of Labor Statistics publication it was noted: "There is not, and indeed in a rapidly changing pluralistic society there cannot be, one standard universally accepted and uniformly applicable by which it can be decided who is poor. Almost inevitably a single criterion across the board must either leave out of the count some who should be there or include some, who all things considered, ought not be classed as indigent."⁸

An examination of the sixty-year history of using budgets to define poverty in the United States makes evident the existing problems. Budgets are devised for families with specific characteristics and in specific living circumstances. In earlier years these tended to be budgets for working families of four or five persons living in urban areas; such budgets would not be representative of families in rural areas, families who were retired, etc. In recent years, budgets have been constructed for many more family characteristics and these have been matched to the income distribution of families with the same characteristics. No account is taken of the fact that some families may have an imputed income from capital assets and thus have lower money income requirements than other families. There may also be differences in respect to access to free services such as medical care, education and so forth. Ideally, as well as income data, information is needed on other aspects of consumer finances such as asset holdings and the stocks of consumer durables owned. Obviously a family of three with an income of \$3,500, a house owned free of debt and savings of \$10,000, is better off than a family of three renting accommodation and having no accumulated assets. Recent budget studies have at least recognized that there are differences between the circumstances of farm families and those of non-farm families as the former are often able to produce food and other commodities and to own their own homes. Money requirements of farm families are assumed to be lower than those of other families.

⁶See Mollie Orshansky, "Counting the Poor: Another Look at the Poverty Profile", *Social Security Bulletin*, Vol. 28, No. 1, January 1965.

⁷As for example, in the analysis of poverty in *Income and Welfare in the United States*, Chapter 16, "Poverty in the United States", James N. Morgan, Martin H. David, Wilbur J. Cohen and Harvey E. Brazer, McGraw-Hill Book Company, New York, 1962.

⁸Mollie Orshansky, *Social Security Bulletin*, Vol. 28, No. 1, January 1965, p. 3.

Another major problem in the use of annual income data as an indicator of poverty is that annual data in themselves may not be representative of what might be termed the "permanent income" status of an individual or family. The shorter the time period used for the measurement of receipt of income, the more probable it is that the amount received is affected by transitory factors. Although some segments of the population such as the retired category live on fixed incomes, the majority of family income patterns pass through cycles and from year to year the income position undergoes change — some families are gradually improving their position while for others the long-run expectations are for a worsening. Although little data exist to verify the supposition, annual data may tend to overstate the degree of inequality existing in the income distribution and the proportion of families with permanent low-income status may be lower than annual data suggest.

For example, in the United States the Council of Economic Advisers, in examining the characteristics of families in poverty, used some data collected from a sample survey of families for the year 1962 and income data for the year 1963 were collected from the same sample of families a year later. It was found that 30 per cent of families with incomes below \$3,000 in 1962 had incomes above \$3,000 in 1963 although the over-all proportion of families with incomes below \$3,000 showed little change. This indicates that the majority of low income families were largely an unchanging group of families but it also indicates that many families with low incomes in a one-year period might have a temporary low-income status. As might be expected from the discussion in Chapter Six on incomes by family life cycle, the families most likely to improve their positions are those with male heads under 35. Younger families contained the highest proportions of families whose incomes changed most between 1962 and 1963; the greatest change occurred among families with heads aged 35 to 44, in which group nearly half of those with incomes below \$3,000 in 1962 had incomes above \$3,000 in 1963.⁹

DEFINITION OF NEEDS

The long-run experience with developing standards of poverty is that standards are not static but the designation as to who is poor is greatly influenced by contemporary opinion as to what are the "minimum needs" of families. The poor are those who do not have sufficient income resources to satisfy these "needs". The standards set as needs usually rise as over-all real incomes rise. One study has concluded:

"There is a strong factor of circularity in the standards upon which workers' budgets are based. Not only do they reflect what society thinks men 'ought' to spend for 'subsistence', 'minimum adequacy', or 'minimum comfort' but also what contemporary low-income people customarily *do* spend when they buy what is budgeted for. Workers' family budgets,

⁹See pp. 161 - 166 of *Economic Report of the President*, January 1965. United States Government Printing Office, Washington, 1965.

especially at the 'subsistence' level, thus reflect the customary contemporary life style of the poor as society judges it ought to be and as the poor expect it to be. Society's judgment as to what workers' families 'ought' to spend tends also to reflect the extent of its concern about poverty at any time."¹⁰

The decisions as to what the components of family budgets should be are, to a considerable extent, subjective decisions, not objective ones, and are very much influenced by the current over-all level of living of the remainder of the population. Thus, if the overwhelming majority of the population come to consume or use a certain commodity, it tends to be regarded as a need of the total population. The history of working-class budgets in the United States, for example, shows that in earlier days items included in the budget tended to be items that society felt working families should have rather than items they could acquire out of the existing distribution of incomes. As a result, when such budgets were priced, it was found that the majority of working families had incomes that were too low to purchase the complete budget.¹¹

The conclusion as to how many people are poor will be greatly influenced by the decision as to what commodities and services people should be able to have in order not to be poor. There is general agreement that incomes should be sufficient to provide for subsistence, however that may be defined, and some of these budgets have been called "subsistence" budgets. However, in an affluent society the notion that incomes should provide subsistence and no more is often unacceptable and other budgets have been drawn up to provide what is sometimes called a "modest but adequate" level of living. It follows that the more generous the budget contents, the higher the proportion of families considered to be poor when incomes are compared with the cost of purchasing the budget. The numbers of poor families in the United States in one set of estimates increase by 50 per cent if two budgets are drawn up with one budget containing more generous allowances for consumption as minimum budget requirements.¹²

It is because poverty is a relative concept that poverty or low income does not diminish as much as might be expected in view of the real income growth of a country. The extent of change can be evident only if contemporary standards are applied to the income structure of an earlier day. A study in the United States, using as a criterion of poverty the 1935 New York City Welfare Budget adjusted for price change, demonstrated that in 1935 some 28 per cent of United States

¹⁰Oscar Ornati, *Poverty Amid Affluence*, The Twentieth Century Fund, New York, 1966, p. 131. For a discussion of the conceptual and statistical problems involved in the construction of budgets, see the article by N.N. Franklin "The Concept and Measurement of 'Minimum Living Standards' ", *International Labour Review*, Vol. 95, No. 4.

¹¹See discussion by Dorothy S. Brady in "Scales of Living and Wage Earners' Budgets", *The Annals of the American Academy of Political and Social Science*, March 1951, Vol. 274.

¹²See Mollie Orshansky, "Recounting the Poor - A Five-Year Review", Table 7, p. 31, *Social Security Bulletin*, April 1966.

families had below subsistence-level incomes while by 1960 this ratio had dropped to 10 per cent. If the 1960 subsistence-level budget were applied to the 1935 income distribution, then 47 per cent of families in 1935 were below the 1960 subsistence level.¹³

Thus, even though the level of living of the poor improves through time, poverty never seems to be eliminated because a wide gap persists between the level of living attained by some segments of the population and those enjoyed by the majority of the community. In Canada, the subjective element in discussing the needs of the poor is implicit in some contemporary views as to what are symptoms of poverty. For example, the lack of bathrooms, running water and central heating in rural housing have been cited as evidence of substandard housing. The 1941 Census showed that at that time half of Canadian households had no installed baths or showers (nearly 25 per cent in urban areas) and 45 per cent of households had no inside toilets. Amenities which in the mid-1960s are considered to be necessities as recently as 25 years ago were not available to nearly half of Canadian households. Other examples of items that might be considered necessities of the 1960s are consumer durables such as television sets or automobiles. When television sets first became available in the early 1950s only the middle and upper income classes could afford them; currently, families who do not own television sets appear to be those residing in parts of the country still not reached by television stations, or families who can afford television but consider it a status symbol not to own one. Budgets for welfare purposes now recognize that expenditures on television ownership should not disqualify recipients from receiving assistance. Similarly, in 1961 the majority of families with incomes above \$2,000 owned automobiles and a surprising 40 per cent of those with incomes below \$2,000 also owned automobiles. Statistics suggest that non-owners tend to consist of groups such as the aged who may no longer be able to operate a car. In the postwar years it is obvious that an automobile has joined the list of family "needs"; in pre-war years it would still have been considered a luxury item. It might be noted that the U.S. Bureau of Labor Statistics budget, designed to provide a modest but adequate level of living for a retired couple, includes provision for the ownership and operation of an automobile.¹⁴

It should also be noted that in the United States, experiments with a range of criteria to define very minimum income requirements either using minimum budgets or fixed income points have tended to produce very similar results as to the probable size of the population that may be experiencing poverty. However, the more sophisticated approaches show lower proportions of poor families than the more arbitrary approaches and show fewer adults and more children in this group than the simpler criteria. Further, although the estimated number of persons is

¹³See Herman P. Miller, *Measurements of Alternative Concepts of Poverty*, Institute of Government and Public Affairs, University of California, Los Angeles, November 1964.

¹⁴See "The Cost of a Retired Couple's Budget", *Monthly Labor Review*, November 1960, Vol. 83, No. 11, United States Department of Labor.

much the same under the different criteria, each shows a different composition as to age, family size, place of residence and so forth.¹⁵

2. LOW-INCOME POPULATION IN CANADA

There is no existing official statistical concept of poverty in Canada, primarily because no minimum standard budgets have been constructed that would allow for a location of points in the income distribution below which income inadequacy might exist. For purposes of this study, low-income families are defined as those families whose incomes fall into those income groups in which, on average, most of the income received must be spent upon essentials such as food, clothing and shelter. An examination of family expenditures data collected from a sample of approximately 2,000 spending units living in urban centres of 15,000 or more in population showed that, on average, families of different sizes allocated about half of their income to expenditures on food, shelter and clothing.¹⁶ It was assumed that where expenditures on these components were well above average, that is, where they accounted for 70 per cent or more of family income available, such families might be in straitened circumstances. They would have little "discretionary income" left after expenditures on basic essentials, or income to pay for medical care, education of children, recreation and so forth or for savings. The expenditures data suggested that a single person with an income below \$1,500, a family of two with less than \$2,500, and families of three, four, five or more with incomes of less than \$3,000, \$3,500 or \$4,000, respectively, had such expenditure patterns. The same income limits were used for all families, although possibly lower limits should have been used for rural families.

It should be stressed that the universe being considered probably includes the great majority of families who are in genuine need but it must not be assumed that all of these were living in poverty. The U.S. Bureau of Labor Statistics budget estimates of incomes that may be indicative of poverty are 1960 urban incomes of \$1,700 to \$1,900 for a family of two, \$2,000 to \$2,600 for a family of three, \$2,500 to \$3,200 for four, \$3,100 to \$3,800 for five and \$3,600 to \$4,200 for six or more, so that the income levels used in this report for families of two to four persons for Canada are higher than those developed for the United States as poverty lines.¹⁷ The Bureau of Labor Statistics estimates developed for families of different age compositions and sizes assume that young families need less than families at later stages of the income cycle. The minimum figure represents the requirements

¹⁵See Mollie Orshansky, "Counting the Poor: Another Look at the Poverty Profile". *Social Security Bulletin*, Vol. 28, No. 1, January 1965, Washington, D.C.

¹⁶These data are for the year 1959 and are unpublished data from the DBS 1960 Survey of Family Expenditures. The results of this survey were published in DBS *Urban Family Expenditures, 1959*, (Cat. No. 62-521), Ottawa, March 1963.

¹⁷United States data are from Herman Miller, *Measurement for Alternative Concepts of Poverty*, Institute of Government and Public Affairs, University of California, Los Angeles, November 1964.

of families with heads under age 35 and the maximum those with heads aged 55 to 64. Further, Canadian incomes are lower, the average non-farm family income being only 85 per cent of the American average. The over-all level of living is probably lower in Canada than in the United States.

ATTRIBUTES OF LOW INCOME

Although poverty is a chronic social and economic problem, studies in industrial societies such as the United States and Britain indicate that the characteristics of the population in poverty have changed through time as real incomes have risen. To an increasing extent, poverty is becoming associated with specific groups rather than remaining a characteristic widely found through all segments of the population.¹⁸ In North America during the depression years of the 1930s poverty was probably prevalent among all age groups and in all areas; in present times it has tended to become concentrated among the non-working population.

A number of studies have attempted to specify the population characteristics associated with above-average levels of low income; that is, the characteristics that carry with them high probabilities of poverty. One study concluded that, among families, the significant family characteristics in decreasing order of importance were: head a non-earner, head aged 65 or over, rural farm residence, female head of family, non-white, head aged 14-24, six or more children under 18 years of age. Among unattached individuals the significant factors were: non-earner, age 65 or over, rural farm residence, female, non-white, 14-24 years of age.¹⁹ Another study of poverty gave the following ranking of factors which helped explain the existence of poverty among families: age, disablement, families with children and only one parent, unemployment, non-white, self-employed business man or farmer.²⁰ Families with only one parent present are primarily families headed by women. There is considerable similarity in the factors suggested, such as age and unemployment. A combination of these characteristics increased the probability of poverty.

Appendix 8.A to this chapter shows in more detail the characteristics of the families and persons not in families who compose low-income groups in Canada. Data are not available in the Census on some of the characteristics associated with low income such as disability or the extent of unemployment but other characteristics affecting the level of income such as age, education and occupation are shown separately; most of the tables present data separately for families with male and female heads.

¹⁸Rowntree, for example, in resurveying York in the 1920s found poverty was less likely to be an attribute associated with low levels of wages and unemployment than to be attributed to such characteristics as old age.

¹⁹See Oscar Ornati, *Poverty Amid Affluence*, pp. 43-44. Twentieth Century Fund, New York, 1966.

²⁰See Morgan, David, Cohen and Brazer, *Income and Welfare in the United States*, Chapter 16. McGraw-Hill Book Company, New York, 1962.

Selected characteristics	Number of families		Per cent of total		Incidence of low income per cent
	All families	Low-income families	All families	Low-income families	
Totals	3,626,964 ^a	916,050 ^a	100.0	100.0	25.3
Region —					
Atlantic Provinces	348,887	157,938	9.7	17.3	45.3
Quebec	988,307	275,505	27.2	30.1	27.9
Ontario	1,362,618	253,760	37.6	27.7	18.6
Prairie Provinces	556,251	149,998	15.3	16.4	27.0
British Columbia	368,116	78,359	10.1	8.6	21.3
Place of residence —					
Metropolitan centres	1,901,221	314,540	52.4	34.3	16.5
Other urban municipalities	958,767	249,713	26.4	27.3	26.0
30,000 - 99,999	276,397	54,162	7.6	5.9	19.6
10,000 - 29,999	270,001	64,573	7.4	7.1	23.9
1,000 - 9,999	412,369	130,978	11.4	14.3	31.8
Rural	766,856	351,797	21.1	38.4	45.9
Size of family —					
Two	960,421	280,199	26.5	30.6	29.2
Three	734,111	147,991	20.2	16.2	20.2
Four	757,883	157,283	20.9	17.2	20.8
Five or more	1,174,549	330,577	32.4	36.1	28.1
Sex of head —					
Male	3,343,756	795,494	92.2	86.8	23.8
Female	283,208	120,556	7.8	13.2	42.6
Number of children under 16 —					
None	1,382,913	329,949	38.1	36.0	23.9
One	699,114	143,571	19.3	15.7	20.5
Two	678,546	155,849	18.7	17.0	23.0
Three or more	866,391	286,681	23.9	31.3	33.1

^a Includes Yukon.

TABLE 8.1 — Selected Characteristics of All Families and of Low-Income Families, Year Ended May 31, 1961 — concluded

Selected characteristics	Number of families		Per cent of total		Incidence of low income per cent
	All families	Low-income families	All families	Low-income families	
Age of head —					
Under 25	149,134	43,179	4.1	4.7	29.0
25 - 54	2,508,658	553,891	69.2	60.5	22.1
55 - 64	491,119	109,026	13.5	11.9	22.2
65 or over	478,053	209,954	13.2	22.9	43.9
Labour force status of head —					
In current labour force	2,995,847	572,843	82.6	62.5	19.1
In non-current labour force	99,605	48,814	2.7	5.3	49.0
Not in labour force	531,512	294,393	14.7	32.1	55.4
Education of head —					
No schooling or elementary only	1,680,323	625,040	46.3	68.2	37.2
Secondary 1 - 3 years	1,068,314	207,847	29.5	22.7	19.5
Secondary 4 - 5 years	551,095	62,160	15.2	6.8	11.3
Some university	137,234	12,727	3.8	1.4	9.3
University degree	189,998	8,276	5.2	0.9	4.4
Number of earners —					
No earners	267,734	217,415	7.4	23.7	81.2
One earner	1,870,344	529,361	51.6	57.8	28.3
Two earners	1,114,312	141,747	30.7	15.5	12.7
Three or more earners	374,574	27,527	10.3	3.0	7.3
Major source of family income —					
Wages and salaries	2,908,957	533,282	80.2	58.2	18.3
Self employment	306,478	76,435	8.4	8.3	24.9
Transfer payments	270,771	244,509	7.5	26.7	90.3
Investment income	75,010	26,397	2.1	2.9	35.2
Other income	54,980	24,659	1.5	2.7	44.9
No income	10,768	10,768	0.3	1.2	100.0

SOURCE: Unpublished data from 1961 Census of Canada. Tables are reproduced in the Appendix to the chapter.

In a general way these tables describe how many family units in 1961 were in low-income circumstances, where they were located regionally and what sort of families they were. As to how many, 916,000 families or 25 per cent of all non-farm families had the combined income and family size characteristics outlined above; 416,000 persons living alone or 44 per cent met this low-income criterion. In total, these family units contained approximately 4.2 million persons or nearly 27 per cent of the non-farm population.

Table 8.1 presents a summary of selected characteristics of low-income families. These show that the incidence of low income is very high when these characteristics are present: no member of the family worked during the year, family resides in a rural area and/or in the Atlantic Provinces, the head of the family is 65 years of age or over, the head of the family is a woman, the head of the family was outside the labour force, the head of the family had no education beyond the elementary level. These characteristics then are very similar to those isolated in the United States as primary characteristics of poverty.

The regional distribution of incomes and the reasons for inter-regional differentials were discussed in more detail in Chapter Seven. Table 8.1 reinforces the previous comment that in the Atlantic Provinces a much greater proportion of families had low incomes than in other regions of Canada, and that Ontario contained the lowest proportion of low-income families. The table also confirms again that low incomes were much more prevalent among the rural population, where nearly half of families had low incomes, and among the small urban centres; the frequency of low incomes in the largest cities was only a little over three fifths of the national average.

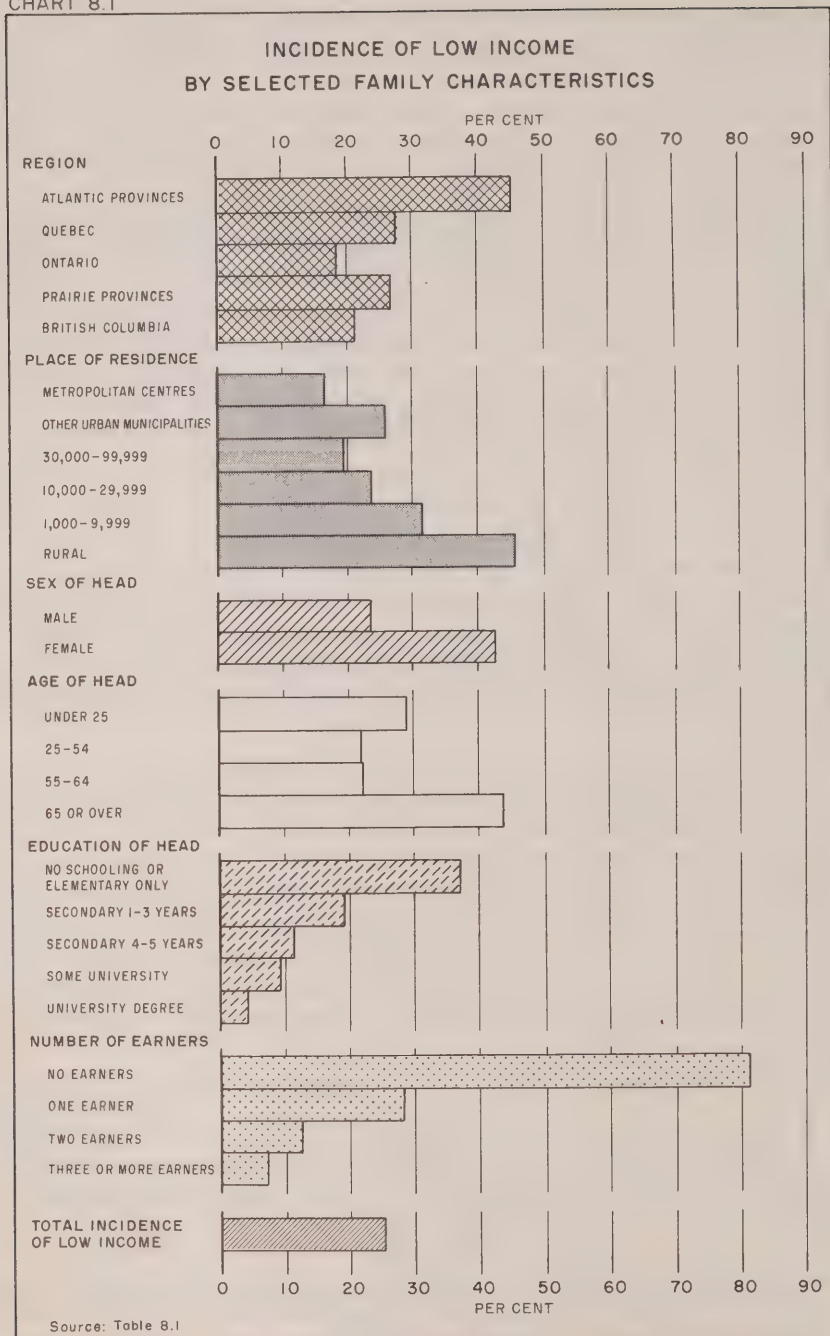
An examination of the absolute number of low-income families with different characteristics rather than the proportion with low incomes shows that the greatest number of these families were concentrated in Ontario and Quebec, as might be expected because, in total, 63 per cent of the population resided in these provinces. Although 45 per cent of families in the Atlantic Provinces had low incomes, 58 per cent of all low-income families lived in Quebec and Ontario. Most low-income families resided in urban centres. Although 46 per cent of rural families had low incomes, only 38 per cent of low income families resided in rural areas; increasingly in urban societies, low income is becoming an urban rather than a rural problem.²¹

LOW INCOME BY AGE AND SEX

It has been suggested that: "Since the ranks of the poor have always been filled with widows and orphans, the halt, the lame, and the blind, a study of poverty must treat these groups separately if only to avoid confusing the effect of age, sex

²¹ These statistics are, of course, for non-farm families only. The inclusion of low-income farm families would raise the proportion of low-income families resident in rural areas although the proportion would probably still not exceed 50 per cent.

CHART 8.1



or disability with other factors”²² The tables confirm that age and sex are important “handicapping” characteristics of low incomes especially among persons not in a family group. Among families, although only eight per cent of families had female heads, approximately 13 per cent of low-income families had female heads. Approximately 20 per cent of low-income families were headed by men aged 65 and over so that, in total, one third of low-income families appeared to be in this category because of the sex or age of the family head. If the assumption is made that age may affect incomes even earlier than 65, for example at age 55, then for 43 per cent of all families the sex or age of the family head is the probable explanation for low family income. The importance of age and sex as characteristics highly correlated with low incomes is even more pronounced if an income cut-off of \$3,000, regardless of family size, is used to designate poverty; 53 per cent of all families below this limit were headed by women or by men aged 55 and over. Age and sex, in themselves, are only superficial explanations of low income. Other factors associated with these characteristics such as the inability to work or a low earning capability, especially among women, probably provide the real explanations. Previous chapters have discussed the earnings of women and Chapter Nine discusses the income patterns of the aged in more detail.

The incidence of poverty follows a somewhat different pattern among families with male heads than among families with female heads. Among families with a husband or father present, the proportion of low incomes was above average when the head was young, especially under age 25, and declined steadily with the lowest incidence occurring when heads were aged 45 to 54, after which the incidence rose sharply. Among families headed by women, the proportion of families in low-income brackets was highest when women heads were under age 35 and lowest when they were age 55 and over. This confirms that, at certain stages of the family cycle, families were able to move out of low-income levels, at least for some years. Low income is more prevalent among young families because only the head might have been working. As children grow older, low earnings on the part of the head might compel wives to enter the labour force and, in turn, when children are old enough they also leave school to help supplement family income. This is especially the case with large families, when the combined incomes of all working family members, for a time, appear to provide an adequate income for the family as a whole. However, where children enter the labour force at an early age with a limited education, and when they leave the parental home to marry and start their own families, the unskilled workers and the new families may in turn become part of the low-income population while the parents themselves may again lapse into poverty.

Young women heading families usually were widowed, divorced or separated and usually had small children dependent upon them. Such families tended to be

²²Dorothy S. Brady, “Research on the Size Distribution of Income”, p. 34.

supported by government social welfare assistance as most women heads of families were outside the labour force. Further, over half of women heads had only an elementary school education and since, even when fully employed, female earnings usually were substantially lower than male earnings, there might be little or no financial advantage for younger women to work. Expenditures on household help or on the cost of providing for the care of children may be such that there might be no real improvement in the income position of the family if women heads enter the labour force and attempt to support themselves from their own earnings rather than welfare assistance. When children grow up and begin working, the incidence of low incomes in such families declines; children, as long as they stay with the mother, take over the responsibility for the maintenance of family income. In families with women heads containing working family members, the workers are usually children or other relatives rather than the family head. If all the children leave home so that the mother is left alone, the probability is very high that her income will be insufficient for her needs. Years of labour force inactivity may also make it difficult for her to re-enter the labour force.

LABOUR FORCE CHARACTERISTICS

Approximately 55 per cent of families whose heads did not work during the year had low incomes and approximately half of families whose heads had worked some of the time but withdrew from the labour force at census time were in a low-income category. In contrast, only 19 per cent of families with heads currently in the labour force reported low incomes. In total, some 40 per cent of these families had heads who had not worked during the year or who were currently not working; this ratio was higher for families headed by women where nearly three quarters of all family heads had this characteristic.

Among families whose heads worked, there was a correlation between occupation and low income. Over half of the families whose heads were farm workers, loggers, fishermen, trappers or hunters were in a low-income category and 40 per cent of the families of labourers had low incomes. However, although these families had the highest proportion of families with low incomes, they accounted for only one fifth of low-income families with male working heads. The largest number of families, approximately one third, were those whose heads were craftsmen and production workers.

Low income is also positively correlated with the education of the family head; the lower the level of education, the higher the probability of low income. Approximately 37 per cent of families whose heads had only an elementary school education had low incomes and such families constituted 68 per cent of all low-income families. In contrast, only 11 per cent of families whose heads had four to five years of secondary schooling had low incomes.

FAMILY COMPOSITION

An examination of family size by age of head and number of children by family size shows that the characteristics of low-income families of different sizes were dissimilar. The two-person families who were nearly 40 per cent of all low-income families were largely the aged; three quarters of these had family heads who were aged 55 and over. One third of families of three persons had heads under age 35 so that three-person low-income families tended to be young families. Some 60 to 70 per cent of families of four or five or more had family heads aged 25 to 44. These were larger families where the children were still of school age and where the head was likely to be the only family member with an income. Families with three or more children under 16 had a higher incidence of low incomes than had families with fewer small children. Of all low-income families, approximately 400,000 or one half of families with male heads had heads who were under age 45. These are the families who have the greatest likelihood of improving their income position through time.

SOURCES OF FAMILY INCOME

As might be inferred from the characteristics already outlined, low-income families were, to a very substantial extent, dependent upon government transfer payments of various types for their income; this was especially so for families headed by women. In total, approximately 27 per cent of low-income families derived the greater part of their income from government sources. Low-income families, although they formed 25 per cent of families, received only 9.4 per cent of total family income. They earned only 7.5 per cent of all income from employment reported by families but 29 per cent of family allowances, 44 per cent of old-age assistance and pensions and 38 per cent of other government transfer payments, such as unemployment insurance and veterans' pensions, went to this group. An examination of the composition of the income receipts of low-income families shows that 70 per cent of the total income came from earnings, 24 per cent from government welfare payments and six per cent from miscellaneous sources, such as private retirement pensions and investment income.

In summary, at least one third of low-income families had characteristics suggesting that such families might have chronic low incomes and some 40 per cent were at a stage in the family life cycle in which they might, at least for some years, improve their income position.

PERSONS NOT IN FAMILIES WITH LOW INCOMES

Age and sex are by far the most important explanations for low incomes among the population who are not members of a family group. Table 8.2 summarizes the age and sex characteristics of these persons. Although some 53 per cent of all unattached individuals were women, they formed 62 per cent of the low-income population. Approximately half of women living alone were aged 55 and older so that the majority would be widows with no children present. In total,

60 per cent of persons living alone and receiving low incomes were aged 55 and older; one third were over age 70. Another 16 per cent of low-income recipients were under age 25 so that three quarters of all persons in this category were in the youngest or oldest age groups. Most of those with low incomes who were under age 25 were young girls, many of whom might have only recently completed school and left their parental homes. The majority of these might eventually marry. Young males with low incomes might also improve their income position through time as they gained experience in the labour force.

TABLE 8.2 – Incidence of Low Income Among Persons Not in Families, by Sex and Age, Year Ended May 31, 1961

Sex and age	Persons not in families		Incidence of low income	Distribution of persons	
	Low income	Total		Low income	Total
	No.	No.	p.c.		
Males	157,901	451,470	35.0	38.0	47.3
Females	257,647	503,572	51.2	62.0	52.7
Totals	415,548	955,042	43.5	100.0	100.0
Age –					
Under 25	65,566	168,954	38.8	15.8	17.7
25 - 34	31,084	147,049	21.1	7.5	15.4
35 - 44	27,563	108,052	25.5	6.6	11.3
45 - 54	40,288	121,979	33.0	9.7	12.8
55 - 59	28,716	70,009	41.0	6.9	7.3
60 - 64	38,889	76,690	50.7	9.4	8.0
65 - 69	51,289	79,991	64.1	12.3	8.4
70 and over	132,153	182,318	72.5	31.8	19.1

SOURCE: Unpublished data from 1961 Census of Canada.

As with low-income families, the incidence of low income among individuals was much higher in rural areas than in urban centres. The majority of this group had only an elementary education although the women, on average, had more education than the men. As might be expected from the age structure, most individuals were not in the labour force during the year so that this group was more dependent upon income from sources other than earnings than were families in low-income circumstances. Only 38 per cent of males and 33 per cent of females received most of their income from employment. Thus the majority of individuals with low incomes who were not part of a family unit were likely to constitute a group with permanently depressed incomes. There was less likelihood that this group would be beneficiaries of rising national incomes; rather they were primarily reliant upon government welfare plans for income maintenance.

TABLE 8.A.1 — Estimated Number of Low-Income Units, by Size of Unit, Sex of Head and Size of Income,^a
Year Ended May 31, 1961

Sex and income size	Persons not in families	Family units of				Total low-income families
		2 persons	3 persons	4 persons	5 or more persons	
Male heads —	No.	No.	No.	No.	No.	No.
Under \$1,000	112,393	48,670	17,652	12,640	21,092	100,054
\$1,000 - \$1,499	45,508	63,347	15,554	10,401	19,257	108,559
1,500 - 1,999		59,755	20,926	15,165	26,159	122,005
2,000 - 2,499		53,418	30,385	22,201	37,423	143,427
2,500 - 2,999			36,031	32,760	51,090	119,881
3,000 - 3,499				47,036	70,288	117,324
3,500 - 3,999					84,244	84,244
Low-income units	157,901	225,190	120,548	140,203	309,553	795,494
Total units.	451,470	822,363	666,527	722,452	1,132,414	3,343,756
Per cent with low incomes	35.0	27.4	18.1	19.4	27.3	23.8
Female heads —						
Under \$1,000	193,692	19,133	8,194	4,500	4,936	36,763
\$1,000 - \$1,499	63,955	13,189	4,389	2,131	2,271	21,980
1,500 - 1,999		11,191	5,749	3,090	2,750	22,780
2,000 - 2,499		11,496	4,528	2,751	3,452	22,227
2,500 - 2,999			4,583	2,224	3,067	9,874
3,000 - 3,499				2,384	2,391	4,775
3,500 - 3,999					2,157	2,157
Low-income units.	257,647	55,009	27,443	17,080	21,024	120,556
Total units.	503,572	138,058	67,584	35,431	42,135	283,208
Per cent with low incomes	51.2	39.9	40.6	48.2	49.9	42.6

^a Non-farm population only.

SOURCE: Unpublished data from 1961 Census of Canada.

TABLE 8.A.2 - All Families and Low-Income Families, by Provinces of Residence and Size of Place of Residence,^a
Year Ended May 31, 1961

Selected characteristics	Low-income families (A)	All families (B)	Incidence of low income (A/B)	Percentage distribution of families	
				Low income	All
Province of Residence -	No.	No.	p.c.		
Newfoundland	45,638	81,957	55.7	5.0	2.3
Prince Edward Island	7,017	14,269	49.2	0.8	0.4
Nova Scotia	58,029	144,003	40.3	6.3	4.0
New Brunswick	47,254	108,658	43.5	5.2	3.0
Quebec	275,505	988,307	27.9	30.1	27.2
Ontario	253,760	1,362,618	18.6	27.7	37.6
Manitoba	45,719	175,054	26.1	5.0	4.8
Saskatchewan	49,569	142,550	34.8	5.4	3.9
Alberta	54,710	238,647	22.9	6.0	6.6
British Columbia	78,359	368,116	21.3	8.6	10.1
Totals ^b	916,050	3,626,964	25.3	100.0	100.0
Size of place of residence -					
Metropolitan centres	314,540	1,901,231	16.5	34.3	52.4
Other urban municipalities	249,713	958,767	26.0	27.3	26.4
30,000 - 99,999	54,162	276,397	19.6	5.9	7.6
10,000 - 29,999	64,573	270,001	23.9	7.1	7.4
1,000 - 9,999	130,978	412,369	31.8	14.3	11.4
Rural	351,797	766,966	45.9	38.4	21.1

^a Non-farm population only.^b Totals include Yukon Territory.

SOURCE: Unpublished data from 1961 Census of Canada.

TABLE 8.A.3 — All Families and Low-Income Families, by Size of Family, Sex and Age of Head, Sex and Number of Children,^a
Year Ended May 31, 1961

Selected characteristics	Low-income families					All families (B)	Incidence of low income (A/B)	Percentage distribution of families	
	2 persons	3 persons	4 persons	5 or more persons	Total low-income families (A)			Low income	All
Age of Head	No.	No.	No.	No.	No.	No.	p.c.		
Male head —									
Under 25	6,574	15,553	11,050	5,716	38,893	142,595	27.3	4.9	4.3
25 - 34	10,446	27,801	50,318	95,958	184,523	808,349	22.8	23.1	24.2
35 - 44	8,523	15,737	34,663	120,396	179,319	873,034	20.5	22.5	26.1
45 - 54	17,120	19,363	24,907	60,126	121,516	696,039	17.5	15.3	20.8
55 - 59	16,915	9,931	6,606	11,770	45,222	245,150	18.4	5.7	7.3
60 - 64	25,544	8,954	4,605	6,625	45,728	189,656	24.1	5.7	5.7
65 - 69	41,815	9,287	3,551	4,411	59,064	153,068	38.6	7.4	4.6
70 and over	98,253	13,922	4,503	4,551	121,229	235,865	51.4	15.2	7.1
Totals	225,190	120,548	140,203	309,553	795,494	3,343,756	23.8	100.0	100.0
Female head —									
Under 25	2,217	1,212	572	285	4,286	6,539	65.5	3.6	2.3
25 - 34	3,889	4,288	3,660	4,240	16,077	23,393	68.7	13.3	8.3
35 - 44	6,803	7,060	5,525	8,177	27,565	46,725	59.0	22.9	16.5
45 - 54	10,026	6,497	3,749	4,619	24,891	61,118	40.7	20.6	21.6
55 - 59	5,451	2,100	976	919	9,446	29,098	32.5	7.8	10.3
60 - 64	5,488	1,481	845	816	8,630	27,215	31.7	7.2	9.6
65 - 69	5,884	1,310	585	743	8,522	25,340	33.6	7.1	8.9
70 and over	15,251	3,495	1,168	1,225	21,139	63,780	33.1	17.5	22.5
Totals	55,009	27,443	17,080	21,024	120,556	283,208	42.6	100.0	100.0

^a Non-farm population only.

TABLE 8.A.3 — All Families and Low-Income Families, by Size of Family, Sex and Age of Head, Sex and Number of Children,^a
Year Ended May 31, 1961 — concluded

Selected characteristics	Number of low income families by size of family				Total		Incidence ratio A/B	Distribution of families		
	2	3	4	5 or more	A Low-income families	B All families		Low income	All	
Number of Children ^b										
Male heads —										
No children	223,702	41,046	11,591	3,958		280,297	1,214,225	23.1	35.2	36.3
1 child	1,488	78,646	21,949	12,598		114,681	645,738	17.8	14.4	19.3
2 children		856	106,141	30,206		137,203	648,616	21.2	17.2	19.4
3 or more children . .			522	262,791		263,313	835,177	31.5	33.1	25.0
Totals.	225,190	120,548	140,203	309,553		795,494	3,343,756	23.8	100.0	100.0
Female heads —										
No children	38,351	8,671	2,100	530		49,652	168,688	29.4	41.2	59.6
1 child	16,658	7,518	3,329	1,385		28,890	53,376	54.1	24.0	18.8
2 children		11,254	4,431	2,961		18,646	29,930	62.3	15.5	10.6
3 or more children . .			7,220	16,148		23,368	31,214	74.9	19.4	11.0
Totals.	55,009	27,443	17,080	21,024		120,556	283,208	42.6	100.0	100.0

^a Non-farm population only.^b Under age 16.

SOURCE: Unpublished data from 1961 Census of Canada.

PERSONS NOT IN FAMILIES WITH LOW INCOMES.

TABLE 8.A.4 — All Families and Low-Income Families, by Other Selected Characteristics,^a
Year Ended May 31, 1961

Selected characteristics	Number of families		Incidence of low income (A/B)	Percentage Distribution of families	
	Low income (A)	All (B)		Low income	All
Number of Income Recipients					
Male heads —					
No recipients	9,009	9,009	100.0	1.1	0.3
1 recipient	465,940	1,491,409	31.2	58.6	44.6
2 recipients	265,623	1,335,339	19.9	33.4	39.9
3 or more recipients	54,922	507,999	10.8	6.9	15.2
Totals.	795,494	3,343,756	23.8	100.0	100.0
Female heads —					
No recipients	1,759	1,759	100.0	1.5	0.6
1 recipient	62,438	84,853	73.6	51.8	30.0
2 recipients	45,058	134,636	33.5	37.4	47.5
3 or more recipients	11,301	61,960	18.2	9.4	21.9
Totals.	120,556	283,208	42.6	100.0	100.0
Number of Income Earners^b					
Male heads —					
No earners	168,902	212,207	79.6	21.2	6.3
1 earner	475,782	1,747,785	27.2	59.8	52.3
2 earners	126,555	1,038,507	12.2	15.9	31.1
3 or more earners	24,255	345,257	7.0	3.0	10.3
Totals.	795,494	3,343,756	23.8	100.0	100.0
Female heads —					
No earners	48,513	55,527	87.4	40.2	19.6
1 earner	53,579	122,559	43.7	44.4	43.3
2 earners	15,192	75,805	20.0	12.6	26.8
3 or more earners	3,272	29,317	11.2	2.7	10.4
Totals.	120,556	283,208	42.6	100.0	100.0
Major Source of Income					
Male heads —					
Wages and salaries	484,979	2,722,469	17.8	61.0	81.4
Self employment	72,019	293,751	24.5	9.1	8.8
Transfer payments	188,393	210,670	89.4	23.7	6.3
Investment income	20,938	61,085	34.2	2.6	1.8
Other income	20,156	46,772	43.1	2.5	1.4
No income	9,009	9,009	100.0	1.1	0.3
Totals.	795,494	3,343,756	23.8	100.0	100.0

For footnotes, see end of table.

**TABLE 8.A.4 – All Families and Low-Income Families, by Other Selected Characteristics,^a
Year Ended May 31, 1961 – continued**

Selected characteristics	Number of families		Incidence of low income (A/B)	Percentage distribution of families	
	Low income (A)	All (B)		Low income	All
Female heads –					
Wages and salaries	48,303	186,488	25.9	40.1	65.8
Self employment	4,416	12,727	34.7	3.7	4.5
Transfer payments	56,116	60,101	93.4	46.5	21.2
Investment income	5,459	13,925	39.2	4.5	4.9
Other income	4,503	8,208	54.9	3.7	2.9
No income	1,759	1,759	100.0	1.5	0.6
Totals	120,556	283,208	42.6	100.0	100.0
Education of Head					
Male heads –					
No schooling and elementary .	551,434	1,528,359	36.1	69.3	45.7
Secondary 1-3 years	174,212	987,805	17.6	21.9	29.5
Secondary 4-5 years	50,889	510,912	10.0	6.4	15.3
Some university	11,219	130,562	8.6	1.4	3.9
University degree	7,740	186,118	4.2	1.0	5.6
Totals.	795,494	3,343,756	23.8	100.0	100.0
Female heads –					
No schooling and elementary	73,606	151,964	48.4	61.1	53.7
Secondary 1-3 years	33,635	80,509	41.8	27.9	28.4
Secondary 4-5 years	11,271	40,183	28.0	9.3	14.2
Some university	1,508	6,672	22.6	1.3	2.4
University degree	536	3,880	13.8	0.4	1.4
Totals	120,556	283,208	42.6	100.0	100.0
Labour Force Participation^c					
Male heads –					
In current labour force	524,056 ^d	2,871,478 ^e	18.3	67.2	86.5
In non-current labour force . .	44,480	91,552	48.6	5.7	2.8
Not in labour force	211,056	355,690	59.3	27.1	10.7
Totals.	779,592^d	3,318,720^e	23.5	100.0	100.0
In current labour force by occupation –					
Managerial	41,950	419,141	10.0	8.0	14.6
Professional and technical .	11,822	255,447	4.6	2.3	8.9
Clerical	21,150	199,763	10.6	4.0	7.0
Sales	23,656	181,541	13.0	4.5	6.3
Service and recreation . . .	49,937	246,281	20.3	9.5	8.6

For footnotes, see end of table.

PERSONS NOT IN FAMILIES WITH LOW INCOMES

TABLE 8.A.4 – All Families and Low-Income Families, by Other Selected Characteristics,^a
Year Ended May 31, 1961 – concluded

Selected characteristics	Number of families		Incidence of low income (A/B)	Percentage distribution of families	
	Low income (A)	All (B)		Low income	All
Transport and communica- tion	60,652	255,896	23.7	11.6	8.9
Farm workers	19,228	34,261	56.1	3.7	1.2
Loggers and related workers	20,048	35,351	56.7	3.8	1.2
Fishermen, trappers and hunters	13,696	20,384	67.2	2.6	00.7
Miners, quarrymen and related workers	7,850	44,252	17.7	1.5	1.5
Craftsmen, production pro- cess and related workers .	182,939	991,291	18.5	34.9	34.5
Labourers	60,652	148,424	40.9	11.6	5.2
Not ascertained	10,476	39,446	26.6	2.0	1.4
Totals	524,056^d	2,871,478^e	18.3	100.0	100.0
Female heads –					
In current labour force	32,750 ^f	99,105 ^g	33.0	27.2	35.1
In non-current labour force . . .	4,334	8,053	53.8	3.6	2.8
Not in labour force	83,337	175,822	47.4	69.2	62.1
Totals	120,421^f	282,980^g	42.6	100.0	100.0
In current labour force by occupation –					
Managerial	1,868	6,535	28.6	5.7	6.6
Professional and technical . .	1,418	11,865	12.0	4.3	12.0
Clerical	6,261	27,724	22.6	19.1	28.0
Sales	3,257	8,230	39.6	9.9	8.3
Service and recreation	14,314	27,298	52.4	43.7	27.5
Transport and communica- tion	611	2,348	26.0	1.9	2.4
Craftsmen, production pro- cess and related workers .	3,914	12,059	32.5	12.0	12.2
Labourers	483	1,161	41.6	1.5	1.2
Not ascertained	624	1,894	27.0	1.3	1.6
Totals	32,750^f	99,105^g	33.0	100.0	100.0

^aNon-farm population only.

^bNumber of persons in the family with income from employment.

^cHeads in current labour force are heads in labour force on June 1, 1961. Those in non-current labour force were in labour force in year preceding the Census but not at census time. Heads not in labour force were those completely outside the labour force during the year.

^dExcludes 15,902 families of farm operators residing off-farm for whom family income data were not complete.

^eExcludes 25,036 families of farm operators residing off-farm for whom family income data were not complete.

^fExcludes 135 families of farm operators residing off-farm for whom family income data were not complete.

^gExcludes 228 families of farm operators residing off-farm for whom family income data were not complete.

SOURCE: Unpublished data from 1961 Census of Canada.

TABLE 8.A.5 – Income Composition of Incomes of Low-Income Families by Sex of Head,^a Year Ended May 31, 1961

Income component	Male heads	Female heads	All low-income families	Percentage \$ of aggregate income received
	p.c.	p.c.	p.c.	
Income from employment	72.5	49.7	70.3	7.5
Family allowances.	6.5	7.3	6.6	29.3
Old age pensions	8.4	11.9	8.7	44.3
Other transfer payments .	7.3	20.9	8.6	38.0
Investment income	2.8	5.7	3.1	6.7
Other income	2.4	4.6	2.6	15.3
Totals.	100.0	100.0	100.0	9.4

^aNon-farm population only.

SOURCE: Unpublished data from 1961 Census of Canada.

TABLE 8.A.6 – All Persons Not in Families and Low-Income Persons Not in Families, by Province of Residence and Size of Place of Residence,^a Year Ended May 31, 1961

Selected characteristics	Number of persons		Incidence of low income (A/B)	Percentage distribution of persons	
	Low income (A)	All (B)		Low income	All
Province of residence –					
Newfoundland	7,755	11,940	64.9	1.9	1.3
Prince Edward Island	2,715	4,205	64.6	0.7	0.4
Nova Scotia	21,233	36,913	57.5	5.1	3.9
New Brunswick	13,682	24,120	56.7	3.3	2.5
Quebec	96,097	220,006	43.7	23.1	23.0
Ontario	144,067	366,534	39.3	34.7	38.4
Manitoba.	23,481	51,810	45.3	5.7	5.5
Saskatchewan	24,672	49,105	50.2	5.9	5.1
Alberta	29,939	74,407	40.2	7.2	7.8
British Columbia	51,540	114,884	44.9	12.4	12.0
Totals^b	415,548	955,042	43.5	100.0	100.0
Size of place of residence –					
Metropolitan centres	206,159	555,324	37.1	39.1	58.1
Other urban municipalities.	110,391	239,262	46.1	27.1	25.1
30,000 - 99,999	30,399	74,193	41.0	6.4	7.8
10,000 - 29,999	29,133	64,808	45.0	7.0	6.8
1,000 - 9,999	50,859	100,261	50.7	13.7	10.5
Rural	98,998	160,456	61.7	33.9	16.8

^a Excludes persons resident on farms.^b Includes Yukon Territory.

SOURCE: Unpublished data from the 1961 Census of Canada.

PERSONS NOT IN FAMILIES WITH LOW INCOMES

TABLE 8.A.7 – All Persons Not in Families and Low-Income Persons Not in Families, by Sex and Other Selected Characteristics,^a Year Ended May 31, 1961

Selected characteristics	Number of persons		Incidence of low income (A/B)	Percentage distribution of persons	
	Low income (A)	All (B)		Low income	All
Age of Persons					
Males —					
Under 25	24,797	82,696	30.0	15.7	18.3
25 - 34	15,798	91,699	17.2	10.0	20.3
35 - 44	13,009	60,443	21.5	8.2	13.4
45 - 54	16,071	58,177	27.6	10.2	12.9
55 - 59	10,906	30,753	35.5	6.9	6.8
60 - 64	12,964	30,345	42.7	8.2	6.7
65 - 69	16,581	29,056	57.1	10.5	6.4
70 and over.	47,775	68,301	69.9	30.3	15.1
Totals	157,901	451,470	35.0	100.0	100.0
Females —					
Under 25	40,769	86,258	47.3	15.8	17.1
25 - 34	15,286	55,350	27.6	5.9	11.0
35 - 44	14,554	47,609	30.6	5.6	9.5
45 - 54	24,217	63,802	38.0	9.4	12.7
55 - 59	17,810	39,256	45.4	6.9	7.8
60 - 64	25,925	46,345	55.9	10.1	9.2
65 - 69	34,708	50,935	68.1	13.5	10.1
70 and over.	84,378	114,017	74.0	32.7	22.6
Totals	257,647	503,572	51.2	100.0	100.0
Major Source of Income					
Males —					
Wages and salaries . . .	55,064	309,017	17.8	34.9	68.4
Self employment . . .	5,864	24,343	24.1	3.7	5.4
Transfer payments . . .	65,421	70,977	92.1	41.4	15.7
Investment income . . .	5,158	12,861	40.1	3.3	2.8
Other income	4,695	12,573	37.3	3.0	2.8
No income	21,699	21,699	100.0	13.7	4.8
Totals	157,901	451,470	35.0	100.0	100.0
Females —					
Wages and salaries . . .	79,647	269,566	29.5	30.9	53.5
Self employment . . .	6,129	15,815	38.8	2.4	3.1
Transfer payments . . .	106,668	114,935	92.8	41.4	22.8
Investment income . . .	19,823	45,726	43.4	7.7	9.1
Other income	8,772	20,922	41.9	3.4	4.2
No income	36,608	36,608	100.0	14.2	7.3
Totals	257,647	503,572	51.2	100.0	100.0

For footnote, see end of table, p. 205.

TABLE 8.A.7 — All Persons Not in Families and Low-Income Persons Not in Families, by Sex and Other Selected Characteristics,^a Year Ended May 31, 1961 — continued

Selected characteristics	Number of persons		Incidence of low income (A/B)	Percentage distribution of persons	
	Low income (A)	All (B)		Low income	All
Education					
Males —					
No schooling and elementary	106,319	228,310	46.6	67.3	50.6
Secondary 1 - 3 years	29,321	112,262	26.1	18.6	24.9
Secondary 4 - 5 years	12,021	65,024	18.5	7.6	14.4
Some university	5,585	22,528	24.8	3.5	5.0
University degree	4,655	23,346	19.9	2.9	5.2
Totals.	157,901	451,470	35.0	100.0	100.0
Females —					
No schooling and elementary	147,935	206,919	71.5	57.4	41.1
Secondary 1 - 3 years	70,010	148,938	47.0	27.2	29.6
Secondary 4 - 5 years	31,866	108,087	29.5	12.4	21.5
Some university	5,538	24,039	23.0	2.1	4.8
University degree	2,298	15,589	14.7	0.9	3.1
Totals.	257,647	503,572	51.2	100.0	100.0
Labour Force Participation ^b					
Males —					
In current labour force.	58,931 ^c	319,188 ^d	18.5	38.0	71.3
In non-current labour force	7,676	16,953	45.3	4.9	3.8
Not in labour force	88,487	111,510	79.4	57.1	24.9
Totals	155,094 ^c	447,651 ^d	34.6	100.0	100.0
In current labour force by occupation —					
Managerial	2,334	20,322	11.5	4.0	6.4
Professional and technical	5,759	35,965	16.0	9.8	11.3
Clerical	2,962	30,176	9.8	5.0	9.5
Sales	2,384	17,073	14.0	4.0	5.3
Service and recreation	8,694	35,191	24.7	14.8	11.0
Transport and communication	3,548	21,658	16.4	6.0	6.8
Farm workers	4,572	7,805	58.6	7.8	2.4
Loggers and related workers	1,919	4,815	39.9	3.3	1.5
Fishermen, trappers and hunters	1,196	1,904	62.8	2.0	0.6
Miners, quarrymen and related workers	453	44,833	9.4	0.8	1.5
Craftsmen, production process and related workers	13,649	95,163	14.3	23.2	29.8
Labourers	8,812	28,359	31.1	15.0	8.9
Not ascertained	2,649	15,924	16.6	4.5	5.0
Totals	58,931 ^c	319,188 ^d	18.5	100.0	100.0

For footnotes, see end of table.

TABLE 8.A.7 – All Persons Not in Families and Low-Income Persons Not in Families, by Sex and Other Selected Characteristics,^a Year Ended May 31, 1961 – concluded

Selected characteristics	Number of persons		Incidence of low income (A/B)	Percentage distribution of persons	
	Low income (A)	All (B)		Low income	All
Females –					
In current labour force	84,148 ^e	278,979 ^f	30.2	32.7	55.5
In non-current labour force . . .	7,612	12,967	58.7	3.0	2.6
Not in labour force	165,150	210,772	78.4	64.3	41.9
Totals	256,910 ^e	502,718 ^f	51.1	100.0	100.0
In labour force by occupation –					
Managerial	2,002	8,375	23.9	2.4	3.0
Professional and technical . .	5,744	53,709	10.7	6.8	19.3
Clerical	8,617	76,080	11.3	10.2	27.3
Sales	4,390	14,307	30.7	5.2	5.1
Service and recreation	53,655	83,985	63.9	63.8	30.1
Transport and communication	1,037	6,247	16.6	1.2	2.2
Farm workers	313	376	83.2	0.4	0.1
Craftsmen, production process and related workers . .	6,687	24,820	26.9	7.9	8.9
Labourers	687	1,809	38.0	0.8	0.6
Not ascertained	1,006	9,246	10.9	1.2	3.3
Totals	84,148 ^e	278,979 ^f	30.2	100.0	100.0

^aExcludes persons resident on farms.

^bPersons in current labour are those in the labour force on June 1, 1961, those in the non-current labour force were those not in the labour force on June 1st but in the labour force during the preceding year. Those not in the labour force were persons with no labour force attachment during the year.

^cExcludes 1,506 farm operators residing off-farm for whom income data are not complete.

^dExcludes 2,406 farm operators residing off-farm for whom income data are not complete.

^eExcludes 82 farm operators residing off-farm for whom income data are not complete.

^fExcludes 129 farm operators residing off-farm for whom income data are not complete.

SOURCE: Unpublished data from 1961 Census of Canada.

Chapter Nine

INCOMES OF THE OLDER POPULATION¹

As the previous chapter indicates, age is a significant characteristic associated with an above-average incidence of low family or individual income. Since the aged form a large proportion of what might be termed the "hard core" low-income group and since they are usually unable to improve their economic position without assistance as a group, they are of special concern within society. In Canada between 1951 and 1961, two major extensions of the social security system occurred — the provision of minimum incomes to the aged and hospital insurance. Since the introduction of universal old age pensions in 1952 to the population aged 70 and over, the amounts of pensions payable have been raised periodically and the age of eligibility has dropped. Further, a contributory pension plan has been introduced which through time will raise pension income substantially. Some of these legislative changes have occurred since the census was taken in 1961, so that incomes of the aged have risen more markedly than over-all incomes — thereby improving the income position of the aged relative to younger age groups. In 1967, for example, no pensioner would have an income of less than \$1,260 in contrast to \$660 in 1961, when the census was taken. *It should be noted, then, that the analysis in this chapter is for a time period in which social security payments to the aged were well below current levels.*

National opinions about the responsibility for the care of the aged have changed substantially in this century. In earlier times it was considered that the working population should save and provide privately for the income needs of retirement or that, alternately, younger members of the family, such as children, should take on the responsibility for the maintenance of the older population. Governments stepped in only as a last resort to provide assistance through means such as the establishment of homes for the aged. It is now accepted that the provision of adequate assistance to the aged is a public rather than a private responsibility.

1. MEANS OF INCOME MAINTENANCE

There is widespread opposition now (1967) to the idea that the aged should live with younger generations of relatives and data indicate that, through time, such

¹This chapter is an abridgement of portions of a special study on the income position of the aged prepared for the Conference on Aging sponsored by the Canadian Welfare Council held in January 1966. The said study, *The Economic Status of the Aging*, by Sylvia Ostry and Jenny Podoluk, is available from DBS upon request. The analyses in this chapter are based mainly on unpublished data from the 1961 Census.

living arrangements are becoming less prevalent.² Surveys in other countries have indicated that the majority of families are not in favour of older persons living with their children, although at the same time it was felt that children should still provide financial assistance to parents.³ There is a widespread attitude that such arrangements are disadvantageous to both generations. Similar inquiries in Canada would probably find that the same point of view is widely prevalent here. A consensus can probably be found that younger generations should not have to assume responsibility for the care and maintenance of older relatives. Although relatives have not abdicated responsibility for elderly family members, their assistance is of less importance than in earlier periods. To a considerable extent, such assistance takes the form of providing living accommodation and meeting other living expenses rather than a direct transfer of income. Further comments on this are given in the following analysis.

The incomes of the aged originate from other sources as well as government pensions, for example, from retirement pensions paid by private pension plans, earnings or investments. Governments do not assume sole responsibility for the provision of incomes to the older population. Individuals can attempt to maintain incomes by electing to continue working as they age rather than by withdrawal from the labour force, or they can attempt to accumulate assets which will yield an income upon retirement. In the Canadian income structure, income received from employment and the size of such income are the major determinants of the shape of the income distribution. This is as much the case with the population in the older age groups as with the population of working age. In Canada, as elsewhere in North America, inherited wealth probably accounts for only a small fraction of assets owned by individuals.⁴ The greater part of assets is usually accumulated out of earnings and it is difficult for most persons to accumulate assets that would yield an income equivalent to the income received while working. Cessation of employment, then, usually means a drop in income and continuation of employment is probably the best means of income maintenance by an individual.

However, the trend in Canada has been for a progressively earlier retirement; where as in 1941 some 50 per cent of the male population aged 65 and over was in the labour force, by 1961 this ratio had dropped to one third; only a very small fraction of women aged 65 and over were found in the labour force in 1961.⁵ The

² For some evidence on this point, see the paper presented by the author in *Proceedings of the Special Committee of the Senate on Aging*, No. 18, Oct. 22, 1964, pp. 1264-1265.

³ For example, see Morgan, David, Cohen and Brazer, "The Economics of Living with Relatives", *Income and Welfare in the United States*, McGraw-Hill, 1962, Chapter 14.

⁴ For example, a U.S. study of a sample of persons with incomes above \$10,000 indicated that only one fifth of wealth holdings was derived from inheritances or gifts. See Morgan, Barlow and Brazer, "A Survey of Investment Management and Working Behavior Among High-Income Individuals", *American Economic Review Papers and Proceedings*, Vol. LV, May, 1965.

⁵ See author's paper to Senate Committee on Aging, *op. cit.*, p. 1252, and Ostry and Podoluk *The Economic Status of the Aging*.

data indicate that those who continue to work tend to be the self-employed and that, among the non-farm population, those who continue to work tend to be the better educated. The higher the level of schooling, the later the age at which retirement tends to take place. Census data in 1961 indicate that, among males with only elementary schooling, 21 per cent of those aged 55 to 64 were not in the labour force and only one quarter of those aged 65 and over were working. Among those with university training, only 10 per cent of those aged 55 to 64 were not in the labour force and 44 per cent of those aged 65 and over were still working. This means that the persons who are more likely to continue working are those who are self-employed and those whose training is such that they are less affected by unemployment and who, during their working lives, are in occupations with higher levels of earnings.⁶

Further, the persons over age 65 in 1961, during their prime working years were in the labour force in periods of abnormal economic conditions in decades when earnings, whether measured in current dollars or in real terms, were much lower than those existing in the 1960s. A few statistics from earlier censuses illustrate this point.

Canadian census statistics have collected information on wages and salaries earned by wage-earners for many decades and some tabulations on earnings by age are available as far back as 1931. Males aged 65 to 74 in 1961 would have been 35 to 44 in 1931. Those in the labour force as wage-earners at that time reported average wages and salaries of \$1,225. These are the earnings of those who worked; many may have had no employment whatsoever during this period because of the high incidence of unemployment existing in 1931. Admittedly, prices were also much lower but if the consumer price index were adjusted for price increases these earnings would still be equivalent to only \$2,226 in 1961 dollars.

In 1941, data were available only for persons aged 45 to 64 who would be 65 to 84 in 1961; average earnings of these wage-earners were \$1,225 which in 1961 dollars would equate to \$2,231. Statistics are unavailable on average earnings in 1951 but median earnings of wage-earners aged 55 to 64 were \$2,244, which would be equivalent to \$2,549 in 1961.⁷ In contrast, the following were average wages and salaries reported by male wage-earners in 1961 by age group: Age 35 - 44, \$4,366; 45 - 54, \$4,274; and 55 - 64, \$3,897. These statistics suggest that the growth in real income in Canada has been concentrated in the period since the war, too late to have benefited most of the population who were age 65 and over in 1961. The ability of these people to save for retirement during their best working years was obviously circumscribed by the income levels of the decades of their prime working years.

⁶The labour force participation of males aged 65 and over has continued to decline since 1961.

⁷The differences between the median and average earnings of wage-earners by age groups are usually small so that the median would be reasonably indicative of average earnings

In the postwar years employers have, to an increasing extent, set up pension plans to provide earnings-related pensions for their employees upon retirement. However, data from sources such as taxation statistics show that even in 1961 less than one third of the labour force was covered by a pension plan and that workers in middle and upper earning brackets were much more likely to be enrolled in pension plans than workers with low earnings. Because many plans were of recent origin in 1961 and because payments under such plans are usually tied to the amount earned and years of contributions, only a minority of the retired population in 1961 were recipients of pensions from plans established by their employers.

2. INCOME SOURCES OF INDIVIDUALS

As already noted, the family is a more appropriate statistical unit for welfare studies than is the individual and the emphasis in this chapter is on the family-income distribution. However, before analyzing family income, some aspects of the individual income distribution is discussed briefly.

The census statistics show that the total population aged 65 and over on June 1, 1961, consisted of 1,400,000 persons. Of these, 1,100,000 or 82 per cent resided in private non-farm households. Of the remaining 18 per cent, 137,000 resided on farms, 59,000 in institutions such as hospitals, homes for the aged, etc., 32,000 in large lodging houses, hotels, etc., and 28,000 were not enumerated for miscellaneous reasons. The income data discussed below apply only to the four fifths of the older population resident in private non-farm households as income data were not obtained from the remaining fifth.

The income distribution by sex and age group was analyzed in Chapter Three, and the discussion is not repeated here; statistics on the income distribution by age were presented in Table 3.13 and major sources of income by age were summarized in Table 3.14. In 1961, only 11,000 males aged 65 and over were not income recipients and 78,000 females, almost entirely in the age group 65 to 69, had no incomes of their own. The majority of women without incomes were married women who were probably supported by their husbands.

Table 9.1 shows the relative importance of the various income sources for the older age groups. As already pointed out, the incomes of women were much lower than those of men; the composition of male and female incomes also differed significantly. For persons aged 65 to 69, median incomes of women were less than half those of males; for persons aged 70 and over average incomes of women were somewhat over half and median incomes were 70 per cent of the male median. Some two thirds of women income recipients had incomes below \$1,000. Approximately one quarter of males aged 65 to 69 and 44 per cent of males aged 70 and over had incomes below this level. The most important explanation of differences in income levels are the different labour force characteristics of the two

TABLE 9.1 — Composition of Incomes of Persons Ages 65-69 and 70 and Over, by Sex and Income Group, Year Ended May 31, 1961

Components of income	Income group										Total
	Under \$500	\$500-999	\$1,000-1,499	\$1,500-1,999	\$2,000-2,499	\$2,500-2,999	\$3,000-3,999	\$4,000-4,999	\$5,000-5,999	\$6,000-9,999	\$10,000 and over
Males aged 65-69 —	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Income from employment	23.8	15.3	32.2	34.9	55.0	61.6	71.9	75.0	73.1	72.0	63.5
Old age assistance and pensions	14.8	49.3	8.0	0.7							2.8
Other government transfer payments .	16.3	16.8	23.7	29.1	12.6	8.9	5.5	3.8	2.9	2.1	6.7
Retirement pensions	18.0	9.2	21.6	22.5	20.1	18.0	13.6	11.5	11.1	11.2	12.3
Investment income .	24.7	8.1	12.4	11.1	10.7	10.4	7.9	8.7	11.2	12.9	13.2
Other income	2.5	1.3	2.1	1.7	1.5	1.2	1.1	1.0	1.5	1.8	1.5
Totals.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Males aged 70 and over —											
Income from employment	12.9	1.3	8.0	12.0	20.3	29.7	40.2	47.8	49.3	50.7	30.7
Old age assistance and pensions	62.8	91.9	52.0	36.0	27.3	22.1	17.1	13.1	10.7	7.7	30.5
Other government transfer payments.	7.7	1.9	8.8	13.1	9.4	7.9	5.8	3.8	2.2	1.5	4.9
Retirement pensions	4.1	1.3	16.0	21.1	23.0	19.7	17.4	15.1	14.4	12.4	12.9
Investment income .	8.7	3.1	13.3	15.3	17.6	17.9	16.7	17.8	20.9	24.8	18.8
Other income	3.8	0.3	1.9	2.6	2.5	2.7	2.8	2.4	2.5	2.8	2.2
Totals.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 9.1 — Composition of Income of Persons Ages 65-69 and 70 and Over, by Sex and Income Group,
Year Ended May 31, 1961 — concluded

Year Ended May 31, 1961 — continued

Components of income	Income group											Total
	Under \$500	\$500-999	\$1,000-1,499	\$1,500-1,999	\$2,000-2,499	\$2,500-2,999	\$3,000-3,999	\$4,000-4,999	\$5,000-5,999	\$6,000-9,999	\$10,000 and over	
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Females aged 65-69 —												
Income from employment	13.1	9.1	26.5	39.2	44.8	49.3	49.0	48.1	45.9	34.5	25.0	30.9
Old age assistance and pensions	21.9	56.9	6.2	2.8								15.0
Other government transfer payments.	7.9	12.9	21.8	12.9	6.6	6.2	3.0	2.6	2.1	1.6	0.9	8.1
Retirement pensions	3.7	4.3	11.0	10.4	11.3	11.3	10.2	8.8	9.5	4.7	0.8	7.2
Investment income .	49.0	14.2	27.8	28.6	31.7	28.5	32.6	33.6	38.3	52.0	66.8	33.6
Other income	4.4	2.7	6.7	6.3	5.5	4.7	5.1	7.0	4.2	7.2	6.5	5.2
Totals	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Females aged 70 and over—												
Income from employment	2.5	0.4	5.2	9.0	11.5	15.2	18.5	25.1	21.0	18.3	15.1	7.7
Old age assistance and pensions	82.0	94.6	52.6	36.7	28.3	22.7	18.0	13.9	11.1	8.4	3.5	55.8
Other government transfer payments.	2.7	1.1	10.8	8.8	14.3	6.3	2.9	2.1	1.8	1.2	0.2	4.2
Retirement pensions	1.6	0.3	5.6	8.6	9.1	9.9	7.6	7.1	7.1	4.3	1.5	3.9
Investment income .	9.0	3.3	21.6	30.1	30.1	38.7	44.1	44.2	51.0	60.0	73.2	24.5
Other income	2.3	0.4	4.3	6.7	6.7	7.1	8.8	7.7	8.1	7.8	6.5	3.9
Totals	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

sexes. Although labour force participation has been declining through time among the older male population, somewhat over half of the income of those aged 65 to 69 still originated in earned income and, even for those aged 70 and over, nearly one third was earned. In total, earned income accounted for nearly half of the total income receipts of males aged 65 and over. Somewhat over half of males aged 65 to 69 and one quarter of those aged 70 and over had earned income. Unpublished data on incomes by finer age groups for the population aged 70 and over suggest that the most important reason for lower incomes among the oldest age groups as compared with those just under or over age 70 is the declining labour force participation with age, rather than higher incomes among the more recently retired.

Most of the women in older age groups are or have been married and, as a result, the majority would not have been in the labour force during their married lives. Even if women were interested in returning to work when they were older and had fewer family responsibilities, re-entry into the labour force would be difficult; because of age and because of lack of training for available employment. Although earned income was of some significance for women aged 65 to 69, it was of minor importance for those aged 70 and over. The importance of earned income to the male population and the minor significance of such income to women affects the degree to which each group is likely to benefit from the national growth in real income. It is the working population that usually shares most in rising real incomes and, to the extent that the older male population works, it may improve its income position through rising earnings. On the other hand, because women are more dependent upon incomes that tend to be fixed, they are more likely to experience an increasing disparity between their incomes and the incomes of the younger population. However, if the trend toward earlier retirement of the male labour force continues, employment income will diminish further in importance and the difference between male and female incomes may narrow somewhat.

For males, aggregate transfer payments were second in importance to earnings, although primarily for those aged 70 and over. Approximately nine per cent of the income of those aged 65 to 69 and 35 per cent of those aged 70 and over was from government payments. Surprisingly, for those under age 70 the income received from government sources appeared to consist of unemployment insurance, veterans' pensions and such payments rather than old age assistance. For approximately 30 per cent of males aged 70 and over the old age pension was the sole source of income; the remainder had some income from other sources.

Investment income ranked third in importance as a source of income for the male population and pensions and miscellaneous income sources, such as assistance from relatives, were the smallest components of the total. However, although retirement pensions accounted for only 12 to 13 per cent of income for males aged 65 and over, approximately one quarter of males reported such incomes. Unpublished data on income sources of the aged classified by five-year age groups for those aged 65 and over shows that the younger the age group, the higher the

proportion of pensioners and the higher the average pension. The average private pension received by those aged 70 and over was approximately \$1,100 and the average reported by those aged 65 to 69 was \$1,500.

Women are primarily dependent upon social security payments for their income; approximately one half of income reported in 1961 was received from government payments. Such income accounted for nearly one quarter of the income of those aged 65 to 69 and 60 per cent of the income of those aged 70 and over. Approximately 55 per cent of women aged 70 and over had only the old age pension¹ for an income, the remainder reporting additional sources, of which investment income was next in importance followed by income from employment. As with men, incomes from other sources such as retirement pensions were the smallest components; however, private pensions were of less importance for women than for men. Approximately 14 per cent of women aged 65 to 69 and only five per cent of those aged 70 and over reported such income. Some of these pensions may be the result of previous employment of women and some may represent survivors' benefits received by widows.

In summary, in 1961, for the elderly male population, earned income and investment income received from the ownership of assets accounted for some 60 per cent of all income receipts, transfer payments accounted for nearly one quarter, and retirement pensions and miscellaneous income receipts made up the remainder. However, although transfer payments were the most important income component for over half of the males aged 70 and over, examination of aggregate income shows that the male population made a greater contribution to its total income from its own resources and efforts than did various levels of government or employers through pension plans. One half the income accruing to women came from government payments and 40 per cent came from investment income or earnings, income from investments being substantially larger than earned income. Since a large proportion of older women are widows the data suggest women were primarily dependent upon government assistance or on incomes from their husbands' estates and that only a small proportion of incomes originated from their own labour force participation.

3. FAMILY INCOME OF THE AGED

In 1961, slightly over half of the population of Canada aged 65 and over consisted of women. Until the late 1950s, males outnumbered females in the older age groups despite the higher life expectancy of women. The higher proportion of males to females before this period may have been the result of immigration patterns as, traditionally, males are usually a higher proportion of the immigrant population and the flow of male immigrants may have maintained a balance in the sex distribution.

Between 1951 and 1961 the female population aged 65 and over increased by 34 per cent while the increase in the male population in this age group was only 22

per cent. Population forecasts for the remainder of the century estimate that the number of women in the older age groups will continue to grow more quickly than the number of males and that by the end of the century nearly 60 per cent of the older population will consist of women.⁸

The implication of these demographic trends is that, increasingly, older women, because they outlive their husbands, are widows and are thus usually no longer members of a family group. In 1961, for example, the proportion of single males and females aged 65 and over was similar – between 10 and 11 per cent. However, only 20 per cent of the men were widowed or divorced and some 69 per cent were still married with their wives present. The reverse was true of women; only 41 per cent of women were still married and approximately one half were widowed. This means that, in total, three fifths of women in the older age groups were not part of what is considered a normal family group – that is, where a husband and wife are still together. In this age group then, women are more likely to be dependent upon their own income resources than are younger women and low incomes are much more a matter of concern than for the younger groups.

TABLE 9.2 – Average and Median Incomes of Persons Aged 65-69 and 70 and Over, by Sex and Marital Status, Year Ended May 31, 1961

Income size	Per cent of total	Average income	Median income
Males aged 65-69 –		\$	\$
Single	7.6	1,937	1,140
Married	81.9	3,366	2,376
Widowed or divorced	10.5	2,463	1,591
Males aged 70 and over –			
Single	7.4	1,566	947
Married	68.4	2,248	1,310
Widowed or divorced	24.2	1,723	985
Females aged 65-69 –			
Single	11.9	1,999	1,356
Married	42.6	926	644
Widowed or divorced	45.5	1,474	897
Females aged 70 and over –			
Single	8.5	1,604	985
Married	35.8	880	776
Widowed or divorced	55.7	1,261	867

SOURCE: DBS, 1961 Census of Canada, *Incomes of Individuals* (Cat. No. 98-501), Table A.6.

⁸ The estimates cited are those prepared for the Royal Commission on Health Services.

For the non-farm population, Table 9.2 shows the distribution of older income recipients by sex and marital status along with average and median incomes. The majority of men, because they are married, may have to support wives and other relatives out of their income. However, the data indicate that married men, on the whole, had incomes substantially higher than those who were single or widowed. Among women, highest incomes occurred among the single group but these formed only a small proportion of the aged. Widows, who were the most important segment, had low incomes with the median less than \$900. It is necessary to examine family income data to form some impression of what the income resources of the aged population, especially of women, were in 1961 since many of the widowed might not have resided alone.

4. INCOMES OF FAMILY UNITS

As Chapter Ten indicates superficially, families headed by the aged showed less change in real income between 1951 and 1961 than families with younger heads. Some of this may be the result of the use of a family concept for measuring income which obscures changes that have occurred in family composition. As has been pointed out, "Comparisons of periods before and after the introduction of social provision for the aged, unemployed, and other similar groups should show, other things being equal, a decrease in the inequality of incomes. This movement toward equality will not appear in the income data unless the aged and the unemployed are recorded at both dates as separate units, wherever they live."⁹

The family definition used in this study is a comprehensive one which treats the family unit as consisting of all relatives living together as one family. The elderly, who because of economic circumstances may live with relatives, tend to become submerged in such statistical series and only if they maintain their own home is their income shown separately. Census statistics for 1951 and 1961 show that the trend over the decade has been for a decline in the extent of doubling-up of the aged and the young in the same family. The absolute number as well as the relative proportion of families with elderly heads who lived with relatives declined over the decade so that by 1961 the number of older families living with relatives was insignificant. More striking, however, was the decline in the proportion of the single and widowed population in the older age groups who lived with relatives; the number of households consisting of one elderly person living alone rose far more rapidly between 1951 and 1961 than the rise in population in this age group in total.¹⁰ These trends were probably a reflection of the real improvement in the financial position of the aged that occurred with the introduction of universal

⁹Dorothy Brady, "Research on Size Distribution of Income", *Studies in Income and Wealth*, Vol. XIII. New York: National Bureau of Economic Research, 1951, p. 12

¹⁰For a discussion of the population trends in the older age groups, see testimony by Allan LeNeveu in *Proceedings of the Special Committee of the Senate on Aging*, No. 20 Nov. 5, 1964.

pensions in 1952. To evaluate the real income changes of the aged between 1951 and 1961, statistics are required on a much narrower family concept than the one in use. It has been suggested that a more appropriate unit of measurement would be the individual or the married couple and their dependent children.¹¹

However, a broader definition is probably a more appropriate basis for welfare studies because it is a better indicator of the financial resources available to the individual or family. Further, the availability of family income data on both the official census concept of the family as well as the economic family provides, for 1961, some data on the incomes of those individuals or families who double-up with other relatives so that some comparisons are possible of the income position of individuals and families maintaining their own homes and those who constitute part of the household of relatives.

Changing the family definition has little effect on the estimated number of families of the aged because, as already pointed out, it is now rare for an older couple to live with relatives. The norm is the maintenance of an independent household. However, the widowed and single population is to a very considerable extent still dependent upon the assistance of relatives. In total, approximately 160,000 men and 300,000 women aged 65 and over were not married at the time of the 1961 Census. Of these, some 60,000 males and 138,000 females lived in the homes of relatives. Thus, 38 per cent of men and 46 per cent of women who were widowed or single double-up with relatives.

INCOMES OF THE NON-MARRIED POPULATION

For both sexes, the incomes of the elderly who live in the homes of relatives are lower than the incomes of those who live independently, although the differences are not too substantial for males. Table 9.3 summarizes the income position of persons who reside with relatives. Except for men in the 65 to 69 age group, the majority of persons in this group had incomes of less than \$1,000; the median income of women fell below \$700.

Unpublished data from the census show that many of the elderly shared accommodation with relatives in their own age brackets such as brothers and sisters rather than with younger relatives such as children. Approximately one quarter of the elderly population who moved in with relatives went to live with relatives of the same generation and the remainder resided in households of younger relatives. This appears to be more the case with women than men. Approximately three per cent of families with male heads aged 65 and over contained other relatives in the same age bracket exclusive of the head's wife; in families headed by older women, approximately 12 per cent included an older relative. This suggests that many

¹¹ For a discussion of the problem, see Morgan et al, *Income and Welfare in the United States*, Chapter 3, New York: McGraw-Hill, 1962, and James N. Morgan, "Measuring the Economic Status of the Aged", *International Economic Review*, Vol. 6, No. 1, January 1965.

women, if unmarried or widowed, tend to reconstitute families consisting of relatives who are their contemporaries. Such doubling-up may result from a need for companionship as well as from financial necessity. In 1961 the majority of the aged who did not maintain their own homes had incomes consisting basically of the old age pension and little else and a large proportion were probably, as a result, dependent upon the assistance of relatives for living accommodation.

TABLE 9.3 — Percentage Distribution of Incomes of Persons Aged 65-69 and 70 and Over Resident with Relatives, Year Ended May 31, 1961

Income group	Aged 65-69		Aged 70 and over	
	Male	Female	Male	Female
	p.c.	p.c.	p.c.	p.c.
No income	7.8	17.3	0.8	2.3
Under \$1,000	39.2	53.6	56.7	70.8
\$1,000 — \$1,499	11.1	9.7	17.2	12.0
1,500 — 1,999	8.1	5.4	8.5	5.4
2,000 — 2,499	7.3	4.0	4.9	3.5
2,500 — 2,999	5.9	2.5	3.1	1.7
3,000 — 3,499	5.6	1.9	2.4	1.2
3,500 — 3,999	3.8	1.7	1.3	0.8
4,000 — 4,999	5.2	1.7	1.9	1.0
5,000 and over	6.1	2.1	3.2	1.4
Totals	100.0	100.0	100.0	100.0
Average income \$	1,967	1,189	1,509	1,076
Median income \$	1,135	610	868	674

The incomes of persons not in families who maintained their own households or who lived as roomers or lodgers in households where they were not related to other household members are shown in Table 9.4. In the 65 to 69 age group, men had substantially higher incomes than women but above the age of 70 the differentials narrowed. In the younger age group some of the men may have been in the labour force but after 70 few would be still employed. In the older age bracket over half of income recipients of both sexes had incomes below \$1,000. Low income then is characteristic of the income distribution of the aged who are single or widowed, whether living with relatives or living alone.

FAMILY INCOMES

As Table 9.5 shows, the financial position of families headed by the aged in 1961 was, superficially at least, more adequate than that of persons not in families. In the age group 65 to 69 there was little differential between average family incomes with male and female heads, although median incomes were higher for

**TABLE 9.4 — Percentage Distribution of Incomes of Persons Not in Families
Aged 65-69 and 70 and Over, Year Ended May 31, 1961**

Income group	Aged 65-69		Aged 70 and over	
	Male	Female	Male	Female
	p.c.	p.c.	p.c.	p.c.
No income	6.0	10.9	0.3	0.5
Under \$1,000	37.3	42.5	51.2	56.7
\$1,000 — \$1,499	13.8	14.7	18.4	16.8
1,500 — 1,999	8.7	9.2	8.6	9.0
2,000 — 2,499	6.4	6.2	5.3	5.5
2,500 — 2,999	5.9	4.0	3.7	3.3
3,000 — 3,499	5.9	3.5	2.8	2.0
3,500 — 3,999	3.8	2.1	2.0	1.4
4,000 — 4,999	5.2	2.6	2.4	1.7
5,000 and over	7.2	4.3	5.2	3.0
Totals	100.0	100.0	100.0	100.0
Average income \$	2,034	1,551	1,720	1,465
Median income \$	1,243	920	971	873

**TABLE 9.5 — Percentage Distribution of Families with Heads Aged 65-69 and 70 and Over,
by Size of Income and Sex of Head,
Year Ended May 31, 1961**

Income group	Head aged 65-69			Head aged 70 and over		
	Male	Female	Total	Male	Female	Total
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Under \$1,000	9.7	9.1	9.6	6.6	7.3	6.8
\$ 1,000 — \$1,499	8.1	7.3	8.0	17.6	8.8	15.8
1,500 — 1,999	9.3	6.8	8.9	14.5	7.4	13.0
2,000 — 2,499	8.0	6.8	7.8	9.5	6.6	8.8
2,500 — 2,999	7.4	7.2	7.3	7.6	6.3	7.3
3,000 — 3,499	7.3	7.2	7.3	6.6	6.9	6.7
3,500 — 3,999	6.4	7.1	6.5	5.4	6.9	5.7
4,000 — 4,999	11.0	13.5	11.3	8.4	14.4	9.7
5,000 — 5,999	7.9	9.9	8.2	6.3	10.0	7.0
6,000 — 6,999	6.0	7.8	6.3	4.4	7.0	4.9
7,000 — 7,999	4.2	5.0	4.3	3.2	5.1	3.6
8,000 — 9,999	5.8	5.5	5.7	4.0	6.2	4.5
10,000 and over	9.0	7.0	8.7	6.0	7.2	6.2
Totals	100.0	100.0	100.0	100.0	100.0	100.0
Average income \$	4,868	4,708	4,845	3,982	4,804	4,156
Median income \$	3,516	3,894	3,585	2,618	3,986	2,884

families headed by women. For families with male heads aged 70 and over, incomes dropped, but there was little change in the income levels of families whose heads were women.

STRUCTURE OF FAMILY INCOME

Because the definition of the family is a comprehensive one, the addition of the income of relatives such as children to parental incomes may conceal low incomes among elderly couples or individuals. Data from the Census provide some indication of the extent to which children and other relatives contribute to family income and the proportion of families in which such relatives affect the level of income. The distribution of income — recipients among families with one, two or three recipients, by age and sex of head, is given in Table 9.6.

TABLE 9.6 — Percentage Distribution of Income-Recipients in Families with Heads Aged 65-69 and 70 and Over, by Number in Family and Sex of Head, Year Ended May 31, 1961

Number of income recipients	Head aged 65-69		Head aged 70 and over	
	Male	Female	Male	Female
	p.c.	p.c.	p.c.	p.c.
1	35.7	16.4	17.1	7.4
2	45.5	59.2	62.5	66.4
3	18.8	24.5	20.3	26.1
Totals	100.0	100.0	100.0	100.0

Surprisingly, as the data discussed in Chapter Eight show, families in the older age groups in 1961 had a lower proportion of families dependent upon one income than did families in younger age groups. This perhaps resulted from the fact that many wives were also pensioners and if there were children still at home they were grown up and working. In families with only one person in receipt of an income, the recipient was usually the family head so that these families were the families living entirely on the income of the head.

Table 9.7 summarizes the main contributors to family income in families of the aged, "main contributor" indicating that the head, the wife, or unmarried children contributed at least 50 per cent of the family income.

The category "other" includes families where a number of relatives had incomes but the contributions of the heads, their wives or their unmarried children did not account for at least 50 per cent.¹² In two thirds to three quarters of

¹² Among families with male heads, this category would include families where the combined income of the head and wife was half or more of family income. In retrospect, these data should have been tabulated with husband-wife incomes combined.

families with male heads, the head or his wife accounted for more than one half of family income; in only one tenth of the cases unmarried children made the largest contribution. For families headed by women, unmarried children were the main contributors to family income so that the over-all family income distribution, to a considerable extent, was a reflection of the contribution of adult children. Because of the dependence of women upon the income of children, it might be more appropriate to not consider them as heads of families. Where women reside with unmarried children, the convention has been followed in the Census of designating the woman as the family head, even if the children actually maintain the household.¹³ Thus, one of the children may have financial responsibility for the household even though the mother is the titular head.

**TABLE 9.7 — Percentage Distribution of Family Income in Families
with Heads Aged 65-69 and 70 and Over, by Major Contributor and Sex of Head,
Year Ended May 31, 1961**

Major contributor	Head aged 65-69		Head aged 70 and over	
	Male	Female	Male	Female
	p.c.	p.c.	p.c.	p.c.
Head	69.9	23.0	59.3	24.6
Wife	6.2		6.0	
Unmarried children	11.2	46.2	11.6	45.3
Other	12.8	30.8	23.1	30.0
Totals	100.0	100.0	100.0	100.0

INCOMES OF HEADS OF FAMILIES

Table 9.8 presents the income distribution of male and female heads of families by the size of income received. These are the amounts of income contributed to family income by family heads. When these figures are compared with the statistics in Table 9.7 it is evident that in 1961 women contributed much less to family income than did the children and relatives living with them and had low incomes in their own right; in fact, on average, they contributed less than one third of family income and two thirds had incomes of less than \$1,000. Women, therefore, were highly dependent upon the assistance of their children and relatives and the breaking-up of the family group would obviously have left the majority of them with very low incomes. The financial position of women who were family heads was thus no better than the position of women living alone.

Male heads of families in 1961 had much higher incomes than did women although many were also in low-income brackets; one quarter of those aged 65 to

¹³ Where a married couple reside with other relatives such as children the person mainly responsible for the maintenance of the household was designated as the head of household or family.

TABLE 9.8 — Percentage Distribution of Heads of Families Aged 65-69 and 70 and Over, by Sex and by Size of Total Income, Year Ended May 31, 196†

Income group	Aged 65-69			Aged 70 and over		
	Male	Female	Total	Male	Female	Total
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
No income	4.1	15.3	5.7	0.4	0.8	0.5
Under \$500	5.8	13.1	6.9	0.9	3.1	1.4
\$ 500 — \$ 999	13.9	38.0	17.3	38.4	62.1	43.4
1,000 — 1,499	9.8	11.9	10.1	15.4	13.4	15.0
1,500 — 1,999	10.9	6.4	10.2	11.6	6.9	10.6
2,000 — 2,499	9.0	4.2	8.3	7.7	4.5	7.0
2,500 — 2,999	8.0	2.6	7.2	5.7	2.7	5.0
3,000 — 3,999	14.1	3.8	12.6	7.8	2.5	6.7
4,000 — 4,999	8.8	1.5	7.8	4.1	1.4	3.5
5,000 — 5,999	4.9	1.1	4.3	2.4	0.8	2.0
6,000 — 6,999	2.9	0.4	2.6	1.4	0.5	1.2
7,000 — 9,999	3.9	0.8	3.4	2.1	0.7	1.8
10,000 and over	4.0	1.0	3.6	2.3	0.6	1.9
Totals	100.0	100.0	100.0	100.0	100.0	100.0
Average income \$	3,266	1,458	3,009	2,285	1,360	2,088
Median income \$	2,306	784	1,990	1,334	871	1,157

69 had incomes below \$1,000, and approximately 40 per cent of those aged 70 and over had less than \$1,000. Approximately two thirds of women family heads had incomes below \$1,000. The median and average incomes of women over age 70 were not much lower than those of women under age 70; male heads, on the other hand, had much higher incomes in the age group 65 to 69 than at age 70 and over. For men, the average and median incomes were \$3,266 and \$2,306 for those aged 65 to 69, and \$2,285 and \$1,334 for those aged 70 and over. In families headed by men, the income of the head, on average, accounted for more than half of family income so that there was less disparity between the incomes of heads and family incomes than in families with female heads.

INCOMES OF HUSBAND-WIFE FAMILIES

The data in Table 9.9 allow some analysis of the extent to which families are dependent upon the income of the head or the head and wife in husband-wife families with husbands of age 65 and over. Husband-wife families accounted for 80 per cent of all families with heads aged 65 to 69, and 70 per cent of all families with heads aged 70 and over. This table makes possible some analysis of the effect on the size of family income of the inclusion of the income of children and other relatives in families containing married couples. Of all husband-wife families with

heads aged 65 to 69, approximately 37 per cent were dependent upon one income, 45 per cent had two income recipients and 18 per cent three or more. In the age group 70 and over, nearly one fifth of families were dependent upon one income,

TABLE 9.9 — Percentage Distribution of Husband-Wife Families, by Number of Income Recipients and by Size of Total Family Income, Year Ended May 31, 1961

Age of head, income group, etc.	1 recipient	2 recipients	3 or more recipients	All families
	p.c.	p.c.	p.c.	p.c.
Head aged 65-69				
Income group —				
Under \$1,000	16.1	5.1	0.5	8.4
\$ 1,000 — \$1,999	23.2	18.7	5.5	18.0
2,000 — 2,999	19.5	15.6	8.8	15.8
3,000 — 3,999	16.1	14.1	9.7	14.0
4,000 — 4,999	9.8	12.4	10.5	11.1
5,000 — 5,999	5.3	9.3	9.9	8.0
6,000 — 6,999	3.0	7.1	9.0	6.0
7,000 — 7,999	1.6	4.4	8.8	4.2
8,000 — 9,999	2.1	5.2	13.9	5.6
10,000 — 14,999	1.8	4.5	16.3	5.6
15,000 +	1.3	3.5	7.3	3.4
Totals	100.0	100.0	100.0	100.0
Families No.	52,569	63,553	25,681	141,803
Average income \$	3,301	4,978	7,988	4,901
Median income \$	2,527	3,752	6,567	3,279
Average income per family^a of —				
Head \$	3,209	3,534	3,227	3,357
Wife \$	59	796	775	520
Unmarried children \$	23	473	2,876	740
Other relatives \$	7	174	1,102	279
Head aged 70 and over				
Income group —				
Under \$1,000	27.1	2.5	0.3	6.6
\$ 1,000 — \$ 1,999	30.4	43.3	7.2	34.0
2,000 — 2,999	17.2	19.2	12.2	17.5
3,000 — 3,999	11.2	11.7	13.1	11.9
4,000 — 4,999	5.0	7.3	12.9	8.0
5,000 — 5,999	3.1	4.7	12.5	5.9
6,000 — 6,999	1.6	3.0	9.6	4.0
7,000 — 7,999	1.0	2.0	7.9	2.9
8,000 — 9,999	1.3	2.3	10.1	3.6
10,000 — 14,999	1.3	2.3	10.1	3.6
15,000 +	0.8	1.6	4.2	2.0
Totals	100.0	100.0	100.0	100.0

For footnote, see page 224.

TABLE 9.9 — Percentage Distribution of Husband-Wife Families, by Number of Income Recipients and by Size of Total Family Income, Year Ended May 31, 1961 — concluded

Age of head, income group, etc.	1 recipient	2 recipients	3 or more recipients	All families
	p.c.	p.c.	p.c.	p.c.
Families No	38,016	131,086	40,313	209,415
Average income \$	2,503	3,401	6,532	3,841
Median income \$	1,775	2,187	5,344	2,537
Average income per family ^a of —				
Head \$	2,485	2,323	2,142	2,316
Wife \$	5	864	751	688
Unmarried children \$	7	153	2,430	565
Other relatives \$	2	61	1,208	273

^aAggregate incomes received by these categories of relatives averaged over all families.

nearly two thirds had two family members with incomes and the remainder had three or more income recipients.

In virtually all cases where families had only one income recipient, the recipient was the family head. These, then, were the families dependent solely upon the income of heads. In the families with two income receivers, for three quarters of those with heads aged 65 to 69 and approximately 90 per cent of those with heads aged 70 and over, the wife was the second person with an income. In the three-or-more-person category, in two thirds of families with heads aged 65 to 69 and approximately 90 per cent of heads aged 70 and over, both husbands and wives had incomes. In total, in 56 per cent of husband-wife families with heads aged 65 to 69 only the head had an income while in 44 per cent both husbands and wives had incomes. Where heads were age 70 and over, in 26 per cent only the head had an income and in the remainder both heads and wives had incomes.

The statistics indicate that there is only a moderate variation in the average income of family heads when families are classified by the number of income recipients. For those aged 65 to 69, the average ranged from \$3,209 to \$3,534 and for those aged 70 and over the lowest average was \$2,142 and the highest \$2,485. The levels of incomes of male heads of families are thus similar regardless of the number of income recipients per family. Since most of the two-income-recipient families consist of husbands and wives with incomes, these distributions are indicative of the distributions of family incomes of those families where husbands and wives both receive incomes. On average, if the incomes of children and other relatives were excluded, family incomes of husband-wife families would be one fifth lower than the average inclusive of such incomes and the income distribution would shift downward. An income distribution measured only in terms of the total incomes of husbands and wives would probably show nearly 30 per cent of families with heads aged 65 to 69 with incomes below \$2,000 and the ratio might

be close to 50 per cent for families with heads aged 70 and over. The presence of children and other relatives in the household does tend to obscure the income position of elderly couples. Where married couples are concerned, the role of children and other relatives is the contribution of additional income resources to those possessed by the couple. Even here, then, the assistance of relatives is significant to the older population. The data suggest that without this assistance the incidence of low incomes among older married couples would be very high. For future research purposes, families with a mixed composition should be separated from families consisting only of husbands and wives so that the effect of their incomes can be isolated in the statistics.

INCOMES BY FAMILY SIZE

Even with the addition of the incomes of relatives to those of family heads and their spouses, the percentage of families in low-income brackets among the aged was higher than among younger families in 1961. It is true, of course, that older families are much smaller in size so that differences in family incomes per person between the families of the elderly and younger families are not as great as the average income per family would suggest. The distributions of family income by size of family are given in Tables 9.10 and 9.11 by age of family head.

These tables indicate that average family size in 1961 was much smaller among older families than among families with younger heads; approximately two thirds of older families consisted of only two persons while only one fifth of younger families were of this size and more than one third consisted of five persons or more. On a per-person basis, the disparity in incomes between older and younger families was entirely concentrated among the two-person families; among larger families with older heads, incomes equalled or exceeded incomes of younger families. However, two-person families with heads aged 65 to 69 had average incomes approximately three quarters of the average of younger two-person families while for heads aged 70 and over the average was somewhat under two thirds of the average reported by younger families.

**TABLE 9.10 — Average Family Income, by Family Size and by Age of Head,
Year Ended May 31, 1961**

Family size	Head under age 65		Head aged 65-69		Head aged 70 and over	
	Per cent of families	Average income	Per cent of families	Average income	Per cent of families	Average income
		\$		\$		\$
2	20.5	5,281	62.1	4,036	68.2	3,366
3-4	43.4	5,852	28.0	5,873	24.7	5,534
5+	36.1	6,308	9.9	7,398	7.0	6,965
Totals	100.0	5,899	100.0	4,882	100.0	4,156

Table 9.11 shows the relative income distribution of older families by family size. Among two-person families, one half of those with heads aged 65 to 69 had incomes below approximately \$2,900, while for those with heads aged 70 and over the median income was just over \$2,200.

TABLE 9.11 — Percentage Distribution of Families with Heads Aged 65-69 and 70 and Over, by Size of Family and by Size of Income, Year Ended May 31, 1961

Income group	Size of family with head aged 65-69			Size of family with head aged 70 and over		
	2	3-4	5 +	2	3-4	5 +
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Under \$1,000	12.7	5.1	2.2	8.6	3.2	1.6
\$ 1,000 - \$1,499	10.2	4.9	3.0	20.9	5.5	2.2
1,500 - 1,999	11.1	5.8	4.4	16.0	7.4	3.7
2,000 - 2,499	9.0	6.5	4.2	10.1	6.8	4.3
2,500 - 2,999	8.5	5.5	5.1	7.8	6.5	4.9
3,000 - 3,999	15.0	12.3	10.5	12.2	13.3	10.5
4,000 - 4,999	11.1	12.1	10.2	8.5	12.1	12.5
5,000 - 5,999	7.0	10.5	9.2	5.2	11.1	11.6
6,000 - 6,999	4.5	9.1	9.3	3.1	8.8	9.2
7,000 - 9,999	5.6	16.4	20.0	4.1	15.5	20.8
10,000 and over	5.3	11.7	21.9	3.6	9.8	18.6
Totals	100.0	100.0	100.0	100.0	100.0	100.0
Average income \$	4,036	5,873	7,398	3,366	5,534	6,965
Median income \$	2,912	4,818	6,129	2,223	4,603	5,888

Families with heads aged 65 to 69 were five per cent of all family units but seven per cent of low-income families as defined in Chapter Eight; those with heads aged 70 and over were eight per cent of all families but 15 per cent of low-income families. In total, families with older heads were 23 per cent of all low-income families. However, by family size, older families were nearly two thirds of all two-person low-income families, about one fifth of three-person families, six per cent of four-person families and only three per cent of families with five or more persons. As might be expected, older families, then, were disproportionately represented among the low-income groups. It might be argued that older families had more modest requirements than younger families and could take care of their minimum needs from a smaller income. However, minimum budget estimates prepared by the U.S. Bureau of Labor Statistics indicate that the cost of a minimum budget for a couple with the head aged 65 or more is not much lower than the cost of a similar budget for a younger two-person family, which suggests that, when family size is taken into consideration, older families need incomes

nearly as large as younger families of the same size to maintain equivalent levels of living.¹⁴

FAMILY INCOME BY CHARACTERISTICS OF THE HEAD

The previous analysis of the structure of family income led to the conclusion that the most important factors determining the size of family income were the size of income of the family head and the stage in the family life cycle.

Data were not tabulated on the income distribution of heads of families by characteristics of the heads but only on family income by characteristics of the head, so that it is not possible to analyze the contribution to family income of heads with different characteristics as to education, labour force participation and so forth. However, it is to be expected that there will be a correlation between the size of family income and the size of the income of the family head and that, for example, families with working heads should have higher incomes than families with non-working heads. Tables 9.12 and 9.13 show family income distributions by labour force attachment of the family head and by education of the family head for families with male heads only. In Table 9.12, families are classified by whether the head was in the labour force — either currently or, if not currently, during the year — or by whether the head had no labour force affiliation whatsoever. Table 9.13 cross-classifies family income by level of schooling of the family head.

Statistics are not shown separately for families headed by women because there is much less correlation between family income and the characteristics of the head in these families than in families with male heads. Only a very small proportion of women heads aged 65 to 69 were in the labour force and there was scarcely any labour force participation on the part of women family heads aged 70 and over. Similarly, family income classified by the education of the family head showed no clear pattern for families headed by women. This is to be expected in view of the earlier conclusions that women, themselves, are not the major contributors to family income and that the size of income in their families is more likely to be determined by the earning ability of their children.

Families whose heads were in the current labour force had the highest incomes, families whose heads were in the labour force earlier in the year ranked next, and families whose heads reported no labour force attachment during the year had the lowest incomes of all. For families with heads aged 65 to 69, only 13 per cent of those with heads in the current labour force had incomes below \$2,000, but 43 per cent of those whose heads were outside the labour force completely had incomes below that amount. For families with heads aged 70 and over, these percentages were 12 per cent and 45 per cent, or very much like the ratios for the younger group. However, more than half of the families with heads aged 65 to 69 were in the current labour force or had worked during the year while only 20 per cent of

¹⁴ See U.S. Department of Labor, "Equivalent Income Scales by Family Type", *Monthly Labor Review*, November 1960, Vol. 83, No. 11.

TABLE 9.12 — Percentage Distribution of Incomes of Families with Male Heads Aged 65-69 and 70 and Over, by Labour Force Participation of Head and by Size of Family Income, Year Ended May 31, 1961

Age of head and income size	Heads in labour force ^a		Heads not in labour force
	Current	Non-current	
	p.c.	p.c.	p.c.
Head aged 65-69			
Income group—			
Under \$1,000	3.8	6.8	16.0
\$ 1,000 — \$1,499	3.5	6.6	12.9
1,500 — 1,999	5.0	8.0	13.7
2,000 — 2,499	6.8	8.4	9.1
2,500 — 2,999	7.0	9.0	7.4
3,000 — 3,999	16.2	15.0	11.0
4,000 — 4,999	13.9	12.5	7.8
5,000 — 5,999	10.3	7.6	5.5
6,000 — 6,999	7.6	6.3	4.4
7,000 — 9,999	13.3	10.3	6.6
10,000 and over	12.7	9.5	5.4
Totals	100.0	100.0	100.0
Average income \$	6,091	5,151	3,614
Median income \$	4,554	3,747	2,407
Families No.	70,603	11,169	71,291
Head aged 70 and over			
Income group—			
Under \$1,000	2.6	3.4	7.6
\$ 1,000 — \$1,499	4.0	7.5	20.9
1,500 — 1,999	5.8	10.4	16.5
2,000 — 2,499	6.7	10.4	10.0
2,500 — 2,999	7.5	10.1	7.5
3,000 — 3,999	15.9	18.0	10.9
4,000 — 4,999	12.7	10.6	7.4
5,000 — 5,999	10.1	7.9	5.4
6,000 — 6,999	7.3	5.1	3.7
7,000 — 9,999	13.1	9.9	5.9
10,000 and over	14.4	6.7	4.1
Totals	100.0	100.0	100.0
Average income \$	6,473	4,410	3,438
Median income \$	4,591	3,456	2,250
Families No.	39,853	7,443	188,569

^a Heads of families in current labour force are heads of families with a job or looking for work on June 1, 1961; the non-current labour force includes heads who were not in the labour force on June 1, but were in the labour force during the previous twelve months.

family heads aged 70 and over reported labour force participation. The permanent withdrawal of family heads from the labour force obviously results in a substantial decline in the level of family income.

TABLE 9.13—Percentage Distribution of Incomes of Families with Male Heads Aged 65-69 and 70 and Over, by Level of Education of Head and by Size of Family Income, Year Ended May 31, 1961

Age of head and income size	No schooling and elementary	High school 1-3 years	High school 4-5 years	Some university	University degree
	p.c.	p.c.	p.c.	p.c.	p.c.
Head aged 65-69					
Income Group —					
Under \$1,000	11.0	6.5	5.2	3.9	2.4
\$ 1,000 — \$1,499	10.1	5.9	3.1	3.7	1.0
1,500 — 1,999	10.7	8.5	6.1	4.0	1.6
2,000 — 2,499	8.7	8.0	6.4	5.6	1.9
2,500 — 2,999	7.8	7.7	5.7	6.5	2.3
3,000 — 3,999	14.1	13.9	13.2	12.9	8.4
4,000 — 4,999	10.5	12.4	12.0	11.4	7.2
5,000 — 5,999	7.2	9.2	9.1	9.8	8.5
6,000 — 6,999	5.2	7.0	8.6	7.9	7.6
7,000 — 9,999	8.3	11.3	14.4	14.5	17.3
10,000 and over	5.6	9.5	16.0	19.8	41.8
Totals	100.0	100.0	100.0	100.0	100.0
Average income \$	4,000	5,286	6,405	7,490	11,958
Median income \$	3,050	3,964	4,858	5,204	8,578
Families No.	98,502	29,286	15,386	4,568	5,321
Head aged 70 and over					
Income Group —					
Under \$1,000	7.7	4.8	3.6	3.1	1.6
\$ 1,000 — \$1,499	21.0	11.7	8.6	7.5	3.4
1,500 — 1,999	15.8	13.7	10.8	9.0	3.4
2,000 — 2,499	9.8	9.9	8.2	9.3	3.5
2,500 — 2,999	7.6	8.2	7.2	7.9	5.0
3,000 — 3,999	11.2	14.2	14.6	12.3	9.8
4,000 — 4,999	7.6	10.2	10.2	9.9	11.0
5,000 — 5,999	5.6	7.3	8.1	8.9	9.1
6,000 — 6,999	3.8	5.4	5.6	5.8	7.6
7,000 — 9,999	5.9	8.2	11.0	12.1	18.0
10,000 and over	3.8	6.4	12.1	14.3	27.7
Totals	100.0	100.0	100.0	100.0	100.0
Average income \$	3,387	4,283	5,720	6,482	9,152
Median income \$	2,281	3,120	3,795	4,091	6,421
Families No.	165,691	36,930	20,222	5,692	7,330

Data on male labour force participation by age and level of schooling indicate that the higher the level of schooling, the longer males continue working. For example, a much higher proportion of males with university education worked beyond the age of 65 than of males with only elementary schooling. This means that the higher the educational attainment of the family head the higher the proportion of family heads working beyond the age of 65. Further, the higher the level of education, the higher the amount of income earned on average. Males who during their working careers have been in occupations with above - average earnings have better opportunities to save and are more likely to qualify for retirement pensions as a fringe benefit of employment. It is to be expected, then, that when family income is examined by education of the family head, families whose heads have higher levels of schooling should have higher incomes than families whose heads are less well educated. Table 9.13, in fact, shows this pattern: average and median family incomes rise with the level of schooling. However, it should be pointed out that the percentage of family heads with any university training is only a small fraction of all family heads, some six per cent. Education then influences the level of family income even in the oldest age groups.

5. SOURCES AND COMPOSITION OF FAMILY INCOME

Table 9.14 is a summary of the major sources of income of all families with heads aged 65 to 69 and 70 and over, and Table 9.15 shows the composition of income by family income level. The classifications used are the same as those shown previously for individual incomes. Where heads were still under age 70, two thirds of families received most of their income from employment, approximately one sixth were primarily dependent upon transfer payments, and the remainder had investment income and pensions' as the major source. Among families with head aged 70 and over, transfer payments and income from employment were equal in importance; just over 40 per cent of families derived the major part of family income from employment and a similar proportion derived the major part from government payments. The remaining families reported other sources as the largest components of their incomes. The surprisingly high proportion of families reporting earned income as their main source was, to a considerable extent, more attributable to the fact that many families still had children at home who were working than to the continued labour force participation of the head. Only 15 per cent of all family heads aged 70 and over worked during the year. A classification of the major source of income of family heads themselves showed the following patterns:

<u>Major source of income of family head</u>	<u>Age of head</u>	
	<u>65-69</u>	<u>70 and over</u>
	<u>p.c.</u>	<u>p.c.</u>
Income from employment	46.2	16.0
Transfer payments...	22.7	61.6
Investments, pensions and other income	31.0	22.5

**TABLE 9.14—Percentage Distribution of All Families with Heads
Aged 65-69 and 70 and Over by Major Source of Income,
and Average and Median Incomes by Major Source,
Year Ended May 31, 1961**

Age of head and major source of income	Major source	Average income	Median income
	p.c.	\$	\$
Head aged 65-69			
Income from employment	65.2	5,962	4,652
Transfer payments.	16.0	1,784	1,464
Investment income	8.1	5,253	2,696
Pensions and other income	10.6	3,317	2,567
Head aged 70 and over			
Income from employment	42.2	6,130	5,050
Transfer payments.	42.6	1,752	1,513
Investment income	8.4	6,679	4,015
Pensions and other income	6.8	3,956	3,229

These statistics suggest that, if family incomes had been measured without the income of children and other relatives, most heads of families aged 70 and over and their wives would be classified as being primarily dependent upon government assistance for income. For the population aged 70 and over in 1961, whether single, married or widowed, government transfer payments were of great importance in income maintenance. The families not so dependent appeared to be the families where heads still worked or where other family members, such as children, were in the labour force.

An examination of the major source of income by income level shows that, for families with heads aged 65 to 69, somewhat over one half of families with incomes below \$2,000 received the major part of their income from government transfer payments while the ratio was nearly one fifth for families with incomes of \$2,000 to \$3,000. Another one quarter of families with incomes below \$3,000 had pensions and investments as their major source. In the income group \$3,000 to \$4,000, three quarters of families depended upon earned income, the proportion rising to 85 per cent or more of families in the income group above \$4,000.

For families with heads aged 70 and over, some 90 per cent of families with incomes below \$2,000 were primarily dependent upon government assistance and half of those with incomes of \$2,000 to \$3,000 were similarly dependent. Approximately 57 per cent of families with incomes of \$3,000 to \$4,000 had earned incomes as their major source as did three quarters or more of families with incomes above \$4,000. Thus, between one quarter and one fifth of families with incomes of \$2,000 to \$5,000 depended upon investment income and pensions as their primary income sources while above \$5,000 the ratio was around 15 per cent.

TABLE 9.15 — Percentage Composition of Incomes of Families with Heads Aged 65-69 and 70 and Over,
by Income Level, Year Ended May 31, 1961

Income component	Under \$1,000	\$1,000- 1,499	\$1,500- 1,999	\$2,000- 2,499	\$2,500- 2,999	\$3,000- 3,999	\$4,000- 4,999	\$5,000- 5,999	\$6,000- 9,999	\$10,000+	Total income
Head aged 65-69											
Income from employment	20.6	25.7	31.0	48.4	56.6	67.0	72.8	74.9	75.2	73.7	69.5
Old age assistance and pensions . .	37.4	30.7	14.5	8.2	5.3	4.1	2.9	2.4	1.6	0.5	3.4
Other governments transfer payments	14.7	19.7	26.1	15.3	11.4	7.8	5.9	4.6	3.8	1.4	5.5
Retirement pensions	9.3	11.7	15.5	15.0	14.8	11.0	8.7	8.1	8.7	4.2	7.9
Investment income	16.2	10.7	11.4	11.2	10.3	8.8	8.5	8.8	9.2	18.2	12.0
Other income	1.8	1.6	1.6	1.8	1.6	1.4	1.2	1.2	1.5	1.9	1.6
Totals	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Head aged 70 and over											
Income from employment	4.2	4.8	10.9	20.0	30.4	44.1	55.7	61.2	63.3	60.8	50.2
Old age assistance and pensions . .	84.9	81.6	60.0	43.2	34.1	25.3	18.8	15.2	12.6	5.0	21.9
Other government transfer payments	3.9	5.0	10.9	9.4	8.1	6.5	4.4	4.0	3.5	1.4	4.3
Retirement pensions	1.4	3.2	7.3	11.7	11.6	10.1	7.7	6.8	6.6	4.6	6.7
Investment income	5.2	4.7	9.6	13.4	13.6	12.0	11.6	11.1	12.3	26.1	15.1
Other income	0.6	0.6	1.4	2.3	2.2	2.0	1.8	1.6	1.8	2.1	1.8
Totals	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

In summary, elderly married couples aged 70 and over as well as older persons who were not family members were, in most cases, dependent upon government pensions and other government welfare payments for their primary source of income. Those who were not in low-income groups either received financial assistance from relatives or, in exceptional cases, still worked. The elderly had the most inadequate incomes of any age group and were not in a position to better their position through their own efforts. Concealed poverty is probably more characteristic of this segment of families than of any other.

6. INCOME CHARACTERISTICS OF PERSONS NOT IN FAMILIES

An examination of persons not in families by characteristics similar to those discussed in the previous section, such as labour force participation and education,

**TABLE 9.16—Percentage Distribution of Incomes of Persons Not in Families
Aged 65-69 and 70 and Over, by Sex, by Labour Force Participation
and by Size of Total Income,
Year Ended May 31, 1961**

Age and income group	Males			Females		
	In labour force ^a		Not in labour force	In labour force ^a		Not in labour force
	current	non-current		current	non-current	
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Aged 65-69						
Income group						
Under \$1,000	17.1	30.7	62.3	27.4	37.8	63.0
\$1,000 - \$1,499	11.6	13.9	15.3	16.4	19.1	14.0
1,500 - 1,999	10.2	12.2	7.2	14.0	13.7	7.4
2,000 - 2,499	10.0	9.6	3.8	11.1	9.3	4.4
2,500 - 2,999	9.6	7.0	3.3	8.8	6.1	2.2
3,000 - 3,999	18.9	10.6	3.3	11.4	8.0	3.4
4,000 - 4,999	9.9	6.8	1.8	5.1	2.8	1.8
5,000 and over	12.7	9.2	3.2	5.8	3.1	3.9
Totals	100.0	100.0	100.0	100.0	100.0	100.0
Average income \$	3,100	2,319	1,284	2,126	1,718	1,347
Median income \$	2,557	1,721	803	1,721	1,319	794
Persons No.	10,984	1,776	16,296	12,559	1,600	36,766
Aged 70 and over						
Average income \$	3,585	2,529	1,431	2,050	1,787	1,420
Median income \$	2,606	1,791	868	1,631	1,361	836
Persons No.	8,437	1,414	58,450	7,451	1,201	105,365

^aSee footnote a, Table 9.12.

produces similar results as for families. The incomes of labour force participants versus non-participants and of incomes by level of schooling shows patterns like those evident when family income is cross-classified by these characteristics of the head. Incomes were highest for those who were in the labour force either currently or earlier in the year, for both males and females, and the higher the education of the individual, the higher the income level. Approximately 44 per cent of males aged 65 to 69 were in the labour force at some time and the ratio was 28 per cent for women. However, labour force participation dropped sharply for those aged 70 and over; only 14 per cent of males and eight per cent of females reported working. For this reason detailed statistics are not shown for this group. The surprisingly substantial proportion of women aged 65 to 69 who worked may be a reflection of the fact that, for all age groups, participation rates among women are higher for the single and widowed population than among the married category.

**TABLE 9.17—Average and Median Incomes of Persons Not in Families
Aged 65-69 and 70 and Over, by Sex and by Level of Education,
Year Ended May 31, 1961**

Age and level of education	Males		Females	
	Average	Median	Average	Median
	\$	\$	\$	\$
Aged 65-69 —				
No schooling or elementary only	1,607	1,025	1,106	770
High school 1-3	2,491	1,583	1,527	1,083
High school 4-5	3,441	2,470	2,568	1,634
Some university and degree	4,425	2,946	3,270	2,291
Aged 70 and over —				
No schooling or elementary only	1,386	861	1,121	753
High school 1-3	2,054	1,274	1,546	1,003
High school 4-5	2,934	1,618	2,302	1,362
Some university and degree	4,037	2,530	3,180	1,848

Statistics on the major source of income by sex and age and on the composition of income by income level similar to those shown previously for families are given in Tables 9.18 and 9.19. As with families, the lowest income groups were mainly transfer payment recipients; transfer payments predominated among incomes below \$1,000 for all persons aged 65 and over, while for those aged 70 and over transfer payments formed nearly one half or more of total income between \$1,000 and \$2,000. Higher incomes among those aged 65 to 69 were associated with employment. Among men, pensions and annuities were also of significance; among women, investment income was a substantial component of total income for those with incomes above \$1,000.

Persons aged 70 and over who were not members of families were even more dependent upon government transfer payments than were members of families primarily because they had to rely entirely upon their own financial resources. This segment of the aged had more acute income problems than the aged who still constituted part of a family unit. As pointed out in the chapter on low incomes, they constituted a very disproportionate share of the low-income group among unattached individuals.

**TABLE 9.18—Percentage Distribution of Persons Not in Families
Aged 65-69 and 70 and Over, by Sex and by Major Source of Income,
and Average and Median Incomes by Major Source,
Year Ended May 31, 1961**

Sex and major source of income	Major source	Average income	Median income
Males	p.c.	\$	\$
Aged 65-69 —			
Income from employment	45.7	3,164	2,649
Transfer payments.	32.8	886	668
Investment income	9.1	2,160	1,105
Pensions and other income	12.4	1,853	1,391
Aged 70 and over —			
Income from employment	13.2	4,133	3,167
Transfer payments	69.5	907	689
Investment income	8.0	3,831	2,366
Pensions and other income	9.3	2,618	2,073
Females			
Aged 65-69 —			
Income from employment	29.2	2,240	1,755
Transfer payments.	32.1	879	661
Investment income	26.2	2,212	1,186
Pensions and other income	12.5	1,802	1,389
Aged 70 and over —			
Income from employment	5.9	2,936	2,295
Transfer payments.	73.4	871	658
Investment income	14.2	3,502	2,269
Pensions and other income	6.5	2,529	2,058

TABLE 9.19 — Composition of Income of Persons Not in Families Aged 65-69 and 70 and Over,
Year Ended May 31, 1961

Sex, age and components of income	Under \$1,000	\$1,000- 1,499	\$1,500- 1,999	\$2,000- 2,499	\$2,500- 2,999	\$3,000- 3,999	\$4,000- 4,999	\$5,000 and over	Total income
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Males									
Aged 65-69—									
Income from employment	17.2	33.0	49.3	63.6	69.0	79.9	79.4	71.3	61.9
Old age assistance and pensions	44.5	4.2	3.0						6.0
Other government transfer payments	22.6	28.7	20.7	6.7	6.8	3.9	2.8	1.7	8.6
Retirement pension	6.7	21.0	14.6	17.3	12.6	9.1	7.8	7.2	10.3
Investment income	7.3	10.3	11.0	11.4	10.8	6.3	8.2	18.2	11.7
Other income	1.8	2.9	1.6	1.0	0.8	0.9	1.8	1.6	1.5
Totals	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Aged 70 and Over—									
Income from employment	1.7	8.3	13.0	22.3	27.2	41.1	49.9	46.5	25.9
Old age assistance and pensions	92.0	52.3	36.6	27.5	22.7	17.3	13.5	6.3	37.3
Other government transfer payments	2.4	12.3	11.5	8.9	6.8	3.8	1.9	1.0	4.9
Retirement pensions	1.0	12.7	18.9	19.0	17.5	16.6	11.9	9.2	10.8
Investment income	2.7	12.3	16.7	19.3	21.6	18.0	19.2	33.2	18.5
Other income	0.3	2.2	3.3	3.0	4.2	3.3	3.6	3.7	2.7
Totals	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Females									
Aged 65-69—									
Income from employment	16.0	28.4	37.9	41.8	52.5	50.3	46.3	30.1	34.6
Old age assistance and pensions	41.6	5.7	2.1						7.9
Other government transfer payments	14.4	21.2	14.9	7.2	5.7	3.4	2.4	1.5	8.1
Retirement pensions	5.2	10.6	10.7	12.2	10.6	9.8	9.3	4.2	8.0
Investment income	19.4	27.5	28.1	32.4	25.8	31.0	34.3	58.7	35.8
Other income	3.4	6.6	6.2	6.4	5.3	5.4	7.7	5.6	5.6

Age 64 / 0 and over -										
Income from employment	1.1	5.8	9.7	11.4	17.4	18.9	18.8	14.0	9.5	
Old age assistance and pensions	91.6	52.6	36.5	28.1	21.7	17.9	13.9	6.2	43.2	
Other government transfer payments	1.8	9.5	9.0	14.4	7.1	3.7	2.1	0.9	5.0	
Retirement pensions	0.5	5.9	8.5	9.8	8.9	7.7	7.1	3.6	4.9	
Investment income	4.4	21.4	28.9	29.0	37.7	40.4	49.4	66.7	31.5	
Other income	0.7	4.8	7.4	7.3	7.3	11.4	8.7	8.5	5.8	
Totals	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

Chapter Ten

CHANGES IN THE INCOME DISTRIBUTION 1951-1961

Perhaps foremost among the many problems for the study of which income statistics are required are the problems of real income change through time and the degree of inequality in the income distribution and its change. Many governments in recent decades have committed themselves to the development of economic policies designed to promote real income growth and, through taxation and social security measures, to effect the redistribution of income. For example, when the Economic Council of Canada was set up to study the problem of achieving basic economic and social goals in the Canadian economy, among the suggested goals was a high rate of economic growth and an equitable distribution of rising incomes.

Despite the widespread interest that has existed for many decades as to trends in the distribution of income, a surprisingly limited amount of data exists from which conclusions can be drawn, even in the most developed countries. National statistics, where they exist, are usually of very recent origin—developments of the past decade or two. Even for the periods for which statistics have become available, the distributions are often of such a global nature that structural changes in the income distribution are difficult to determine or examine.

In Canada, the official publication of aggregate annual estimates of national income was initiated only after the Second World War and the estimates themselves were prepared only for the period 1926 on. The first national statistics on the income distribution of families were obtained for 1948 as a by-product of a national family income and expenditure survey conducted in 1949. Prior to this, the only other sources of statistics were statistics on the distribution of wages and salaries collected on the decennial censuses of Canada and the statistics on the incomes of persons filing income tax returns obtained from the Department of National Revenue. The income tax statistics have been available annually since the early 1920s.¹

¹With the exception of a few years in the early 1940s when the tremendous increases in the numbers of persons filing apparently made it impossible for the Department to produce annual data for a period of several years.

In the prewar decades only a small fraction of the total income recipients filed tax returns while at the present time, although most workers file tax returns the statistics cover only a minority of the non-working population, especially those in older age groups.

On each decennial census since 1901, statistics have been collected on the amount of wages and salaries earned by wage-earners in the year preceding the census date and some statistics are available from each census taken in the twentieth century. Comparisons through time are difficult because concepts, enumerating procedures and tabulating procedures changed from census to census so that few statistical series are consistent.

Census statistics on wages and salaries earned are the only available Canadian data for the period prior to 1951 and thus the only indicators of income change in the first half of the century. In 1952 a series of non-farm household sample surveys were initiated which collected data on income from all sources for individuals and families on a regular basis. The 1961 Census obtained similar income data from a sample of one quarter of all non-farm households. Systematic analysis of income trends is therefore possible only for the decade preceding the 1961 Census.

1. TRENDS IN WAGES AND SALARIES 1921-1961

Changes in economic conditions between censuses make it difficult to draw conclusions as to real income change from an examination of earnings in terms of current dollars, as prices have fluctuated since the First World War. For example, considerable inflation occurred during and after the War; price declines began in 1921 but retail prices were still higher than in 1931. The 1931 Census was taken during a period of acute economic distress marked by severe unemployment and declining incomes. Conditions continued to deteriorate until 1933, when the economy began to recover. Prices also started to rise although during the year preceding the 1941 Census consumer prices were still lower than in the years immediately preceding the 1931 and 1921 Censuses. Prices continued rising almost without interruption until 1961 so that price levels in 1951 and 1961 were substantially higher than in 1941 and the prewar decades. These movements in prices must be taken into consideration in drawing conclusions on real income movements through time.

Changing price levels mean changing purchasing power and changing real income even if the level expressed in current dollars does not change. A prerequisite, then, to comparing income distributions existing at different points of time when incomes may change and prices may also change is to adjust the income data in order to remove the effect of price movements or to express the statistics in terms of "constant" dollars or in real terms.

A conversion of income data into constant dollars requires appropriate price indices and, ideally, price indices for the goods and services representative of the expenditures of the individuals or families whose incomes are being examined. That

is, it would be desirable to have separate indices for low, middle and upper incomes, for rural and urban expenditure patterns and so forth. Families in low-income brackets, for example, allocate much higher proportions of income to the purchase of necessities such as food, shelter and clothing while families in upper income brackets may spend more on luxury goods, the purchase of services, health care, transportation and so forth. For example, since the Second World War, many of the commodities and services for which prices have risen most sharply are more significant components of middle and upper income expenditures rather than lower income expenditures.

Separate price indices are not available for families with different income characteristics. The only historical consumer price series is the consumer price index for the period 1913 to the present.² This index measures the percentage change through time in the cost of purchasing a constant "basket" of goods and services, based upon the expenditure patterns of middle-income families resident in larger urban centres. It is not representative, then, of the expenditure patterns of the total Canadian population. In the absence of better indices, this index is the one commonly used to convert income from current dollars to constant dollars.³

As has been mentioned, comparisons of decennial census data on earnings are difficult because of the lack of consistency from census to census. The only series available on a reasonably comparable basis from census to census are statistics on average wages and salaries reported by age and sex. Table 10.1 presents the average earnings of male wage-earners by age group as reported on each census from 1921 to 1961. These averages have been adjusted by the consumer price index to a 1961 constant dollar basis. It should be noted that the statistics for 1951 are median earnings reported, not average earnings. For wage-earners medians and averages usually do not differ greatly by age group, although the median is somewhat lower than the average. Use of the median for 1951, then, somewhat understates the extent of change between 1941 and 1951 and results in an overstatement of the amount of change from 1951 to 1961.

Some tenuous impressions can be formed as to movements of earnings from census to census. Average earnings when measured in current dollar terms were lower in both 1931 and 1941 than in 1921. The 1931 Census statistics indicate that, earnings, when expressed as average earnings per week worked, showed little change; the decline in annual earnings was a reflection of the fact that the average number of weeks worked during the year was lower than before the 1921 Census, a reflection of rising unemployment. However, when the price level is taken into consideration, real earnings in 1921 were lower than in all subsequent censuses. An examination of earnings by age groups in 1931 indicates that only the youngest workers, those under age 25, reported real earnings lower

² Prior to 1949 the index was known as the "cost-of-living" index.

³ Official American income statistics on a constant-dollar basis are adjusted by the consumer price index for the United States.

than in 1921.⁴ However, the averages reported are average earnings of persons with earnings. It is possible that, because of the great extent of unemployment in 1931, earnings average over all wage-earners might change the comparison as to the relative earnings in 1931 compared with 1921. Further, it is probable that by 1933 incomes declined to a level where real incomes may have been lower than in 1921.

TABLE 10.1—Average Wages and Salaries of Male Wage-Earners in Current and 1961 Constant Dollars, by Age Group, Censuses 1921-1961

Age group	1921	1931	1941	1951 ^a	1961
	Current Dollars				
19 and under ^b	561	362	345	931	1,142
20 - 24	846	613	632	1,678	2,542
25 - 34		900	966	2,236	3,845
35 - 44	{1,195 ^c }	1,170	1,179	2,394	4,366
45 - 54		1,202	1,265	2,349	4,274
55 - 64	1,170 ^d	1,071	1,164	2,244	3,897
65 and over	881	860	885	1,723	2,890
Totals	1,057	927	993	2,127	3,679
1961 Constant Dollars					
19 and under ^b	798	644	665	1,122	1,142
20 - 24	1,190	1,090	1,218	2,022	2,542
25 - 34		1,601	1,862	2,694	3,845
35 - 44	{1,680 ^c }	2,081	2,273	2,885	4,366
45 - 54		2,138	2,439	2,830	4,274
55 - 64	1,645 ^d	1,905	2,244	2,704	3,897
65 and over	1,239	1,531	1,707	2,076	2,890
Totals	1,486	1,649	1,915	2,563	3,679

^a 1951 statistics are medians and not averages.

^b For 1921 (except where otherwise noted), 1941 and 1961 the data are for wage-earners 15 to 19; for 1931 and 1951 the data are for those aged 16 to 19.

^c Statistics are for wage-earners aged 50 to 49.

^d Statistics are for wage-earners aged 50 to 64.

SOURCE: Reports from the various censuses. These are wages and salaries earned by wage-earners in the labour force. In 1951 and 1961 the statistics are for the current force.

Lower prices and higher incomes in 1941 meant that gross earnings rose more when measured in real terms than when measured in terms of current dollar earnings which were still lower than in 1921. However, the rise in earnings on a disposable income basis may have been more modest. In 1931 few wage-earners paid income taxes but by 1941 personal tax exemptions had been lowered and a substantial proportion of the labour force was subject to direct taxes.

⁴ Postwar data on unemployment show that during periods of worsening unemployment the young who are new entrants into the labour force experience more unemployment than those who have been in the labour force for some time. The 1931 Census data on weeks of employment suggest that there was a somewhat greater decline in average weeks worked by the younger age groups than by middle-aged workers.

Since the economic recovery started in the late 1930s earnings, when measured in current dollars, appear to have risen quite steadily despite some periods of recession. It is possible that, over short periods of a few years, real earnings may have remained unchanged as the long-run trend of prices has been upward as well. For example, earnings in current dollars more than doubled between 1941 and 1951; when adjustments are made for price change the real increase was much less, approximately 35 per cent or so. Although the statistics must be used with caution, the differences between income in the 1921-1941 period and the 1941-1961 period are such that it must be concluded that real income rose very substantially in the latter period and very modestly in the former period. The decade of greatest improvement in incomes appears to have been that between 1951 and 1961. The increases in average earnings when expressed in constant dollars, were as follows: 1921-1931, 11 p.c.; 1931-1941, 16 p.c.; 1941-1951, 34 p.c.; and 1951-1961, 44 p.c.

These increases suggest that the compounded growth rate of real annual earnings in these decades was at a rate of one per cent per year in the first period, approximately 1.5 per cent in the second period, three per cent in the third decade and 3.5 per cent in the period 1951-1961. In the twentieth century, then, the most marked improvements in earnings would appear to have been concentrated in the two decades preceding the 1961 Census and that, although the latter part of the decade immediately before the 1961 Census was a period of recession, improvements in incomes were still substantial.

The comments on changes in earnings should perhaps be qualified by noting that as incomes have risen over these periods not all age cohorts have benefited equally. In the intercensal decades, as might be expected, the greatest increases occurred in the incomes of the younger age cohorts. Between 1951 and 1961, for example, workers aged 25 to 34 in 1951 who were 35 to 44 in 1961 had real earnings some 60 per cent higher than in 1951. On the other hand, those aged 55 to 64 in 1951 and aged 65 and over in 1961 had earnings only six per cent higher in real terms. Among those younger age groups, two factors are operative in raising earnings — the upward trend in over-all rising real incomes, reflecting productivity increases generally, and the upward trend in earnings associated with the age-earnings cycle which is evident when cross-sectional data are examined (discussed in Chapter Four). Over-all improvements in incomes in the country benefit older age groups as well but usually only to the extent that they compensate for declines in income which tend to set in as workers age. The net effect is to keep real income unchanged or to raise it moderately, relative to the income received at a younger age and an earlier time period.

OCCUPATIONAL CHANGES 1921-1961

The more rapid growth in incomes among the younger age cohorts may also reflect greater productivity among the younger age groups in recent decades than among their older contemporaries. The characteristics of the labour force in 1961

were strikingly different from the labour force in 1921 and the greatest changes in its structure appear to have occurred between 1941 and 1961. Table 10.2 shows the occupational composition of the male labour force in 1921, 1941 and 1961.

TABLE 10.2—Percentage Distribution of the Male Labour Force, by Occupation Division, 1921, 1941 and 1961

Occupation division	1921	1941	1961
	p.c.	p.c.	p.c.
White-collar workers	21.1	20.5	30.6
Proprietary and managerial	8.2	6.2	9.6
Professional	3.0	4.5	7.7
Clerical	4.7	4.5	6.7
Commercial and financial	5.2	5.2	6.6
Blue-collar workers	27.2	29.6	32.4
Manufacturing and mechanical	10.3	16.2	18.4
Construction	5.5	5.8	7.1
Labourers	11.4	7.6	6.9
Transportation and communication	5.9	7.5	9.7
Service	3.4	4.6	8.5
Primary	42.1	37.5	16.0
Agricultural	37.9	31.5	12.2
Fishing, hunting and trapping	1.1	1.5	0.8
Logging	1.4	2.3	1.7
Mining and quarrying	1.7	2.1	1.4
Not stated	0.2	0.3	2.6
Totals	100.0	100.0	100.0

SOURCE: 1961 Census of Canada, *Occupation and Industry Trends* Bull. No. 94-551.

The successive generations of new entrants into the labour force are more likely to go into the expanding fields of employment and to enter the labour force with a higher education than older workers. For example, the average years of schooling reported by the male labour force was 7.5 in 1921, 8.5 in 1941 and 9.4 in 1961.⁵ Thus, another explanation for the more rapid increases in earnings for the younger age cohorts may be the occupational and educational characteristics of younger workers as contrasted with older workers.

As Table 10.2 indicates, the occupational characteristics have changed markedly between 1921 and 1961, the greatest change occurring during the second half of the period. Employment in agriculture declined from 38 per cent to 12 per cent of the labour force and primary occupations in total absorbed only 16 per cent of the labour force in 1961 compared to 42 per cent in 1921. Labourers constituted 11 per cent of the labour force in 1921 and only seven per cent in

⁵ These estimates were made by Gordon Bertram in *The Contribution of Education to Economic Growth*, Economic Council of Canada, Staff Study No. 12, June 1966.

1961. As the discussion in Chapter Four indicates, labourers and workers in primary occupations are in occupations with low levels of earnings. In 1921 such occupations accounted for somewhat over one half of all employment while in 1961 their ratio was somewhat under one quarter. In 1921, professional, technical and commercial occupations, which include the occupations with highest earnings, absorbed 16 per cent of the labour force while in 1961 the corresponding percentage was 24. Occupations of declining relative importance are more likely to be composed of older workers than occupations providing growing employment opportunities.

The statistics cited above on earnings were for the male labour force. Prior to 1951 little data exist that would allow some examination of the family income distribution rather than the individual income distribution. On two censuses, those of 1931 and 1961, statistics are available on total wages and salaries earned by all members of wage-earning families. However, the family concept differs on the two censuses so that the statistics are not strictly comparable. In 1931, average earnings of male heads of families were \$1,185 and of the family as a whole \$1,366. This would equate to \$2,108 and \$2,430, respectively, in terms of 1961 prices. In the 1961 Census male wage-earner heads reported earnings of \$4,133 and family earnings were \$4,906. Earned family income, then, in 1961 was double the 1931 income level. If the family unit had been defined comparably, the increase shown would be somewhat greater than the figures cited. The increase in real earnings per family between 1931 and 1961 appears to be lower than the increases shown in Table 10.1 for average earnings per male wage-earner.

It is probable that the over-all increase in total family income from all sources for wage-earning families was greater than the increase in earnings as such. Certain types of social security payments, such as family allowances and unemployment insurance payments, were initiated only in the 1940s so that earnings probably constituted a higher proportion of total family income in 1931 than in 1961. The statistics suggest that there may have been little change between 1931 and 1961 in the extent to which families were dependent upon the head's income. In 1931, only four per cent of wage-earning families had working wives, while over half had children in the labour force. Children, at that time, left school at a younger age and married later. As Chapter Six shows, in 1961, wives in many families had become workers and were important contributors and, for reasons already discussed, children were much less likely to supplement parental incomes.

The tentative conclusions that can be drawn about income trends from the end of the First World War to 1961 would seem to be the following: real incomes probably rose during the 1920s, declined from 1929 to 1933 to the point where they were at 1921 or even lower levels, started rising again and continued to rise fairly consistently to the present. Real incomes, whether on an individual basis or a family basis, appear to have at least doubled between 1931 and 1961. These comparisons are gross incomes or before-tax incomes; on a disposable-income basis the change would be considerably less as taxes had a much greater impact in 1961

than in 1931. Higher levels of taxation would be partially compensated by the fact that taxes are used to make available better services and facilities to the population as, for example, roads, hospitals, schools and so forth. These are important elements in the level of living of the population but their value is not susceptible to statistical measurement.

2. FAMILY INCOME TRENDS 1951-1961

REAL INCOME CHANGE

The first survey designed primarily to collect income data was conducted by DBS in 1952 to secure income statistics for the year 1951. On this survey, income data were collected from a relatively small sample of approximately 5,500 families. After 1951 further surveys were conducted periodically with improved samples and questionnaires. A description of these surveys may be found in the Appendix along with some comments on the quality of the data and their comparability with the income statistics collected on the 1961 Census.

The data from these surveys are the only consistent sources of data available over a period of time on trends in the Canadian income distribution. However, comparisons of changes in the incomes of families with different characteristics are complicated by the problem already discussed – differences in price levels. To convert the statistics to a basis consistent with 1961, data collected for selected years between 1951 and 1961 were retabulated on two different bases: income distributions in 1961 constant dollars using the consumer price index as a deflator, and the characteristics of families within quintiles for each of the selected years.⁶ Although for the years selected income statistics were available for individuals as well as family units, the analysis was confined to the income distribution of family units.⁷ The years selected for comparison were 1951, 1954, 1957, 1959 and 1961. It should be noted that, except where stated otherwise, the data discussed in the remainder of this chapter and in the next chapter are derived from the weighted sample survey estimates with no further adjustments. Published official estimates of the number and distribution of incomes of all family units usually incorporate adjustments from taxation data for undercoverage of the upper income groups.⁸ Cross-sectional statistics in the reports are usually based upon unadjusted survey data.

Table 10.3 shows the income distribution of unattached individuals (persons not in families), families and family units in total, by size of income in 1961 constant dollars.

⁶ Changes in the quintile structure are discussed in Chapter Eleven.

⁷ Family units include unattached individuals or persons not in families as well as families of two or more persons.

⁸ The effect of the tax adjustments is discussed in Appendix C.

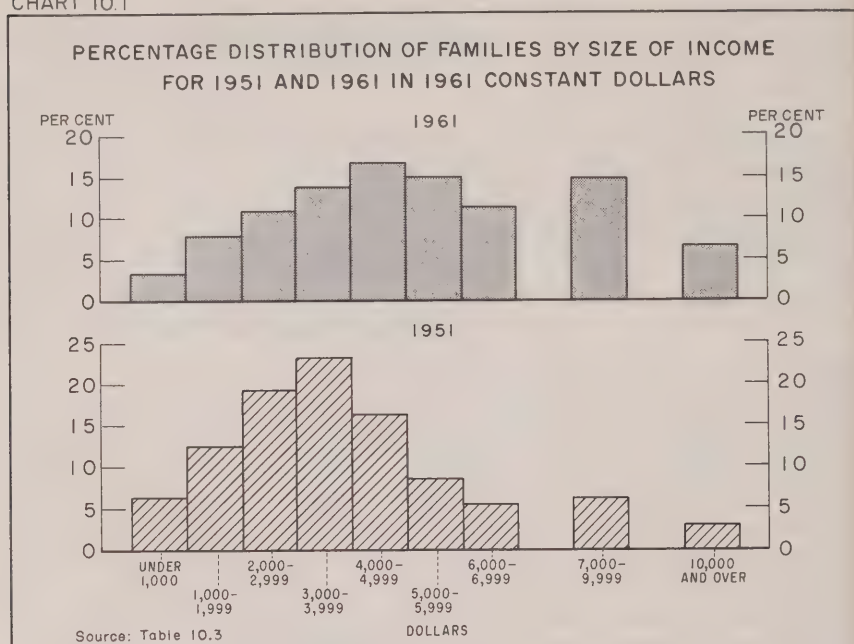
TABLE 10.3 — Percentage Distribution of Incomes of Unattached Individuals and Families in 1961 Constant Dollars, Selected Years 1951-1961

Income group	1951	1954	1957	1959	1961 ^a
Unattached individuals —	p.c.	p.c.	p.c.	p.c.	p.c.
Under \$1,000	40.3	36.5	38.7	37.8	36.5
\$ 1,000 — \$1,999	29.8	26.9	22.1	21.9	20.7
2,000 — 2,999	18.7	18.0	16.2	15.5	15.3
3,000 — 3,999	7.6	10.1	13.7	13.0	12.6
4,000 — 4,999	2.2	4.8	5.3	6.4	8.1
5,000 — 5,999	0.6	1.8	2.0	2.6	3.4
6,000 — 6,999	0.5	1.0	1.0	1.7	1.9
7,000 — 9,999	0.2	0.6	0.7	0.8	1.1
10,000 and over	0.2	0.3	0.2	0.4	0.6
Totals	100.0	100.0	100.0	100.0	100.0
Average income \$	1,551	1,834	1,907	1,997	2,123
Median income \$	1,326	1,502	1,511	1,557	1,572
Families —					
Under \$ 1,000	6.3	4.4	3.6	3.0	3.3
\$ 1,000 — \$1,999	12.5	10.0	10.2	9.1	7.9
2,000 — 2,999	19.2	14.8	13.0	11.7	10.8
3,000 — 3,999	23.2	19.8	16.7	16.4	13.7
4,000 — 4,999	16.2	18.5	17.5	18.4	16.6
5,000 — 5,999	8.4	11.6	13.1	14.3	15.0
6,000 — 6,999	5.4	7.4	8.4	8.5	11.3
7,000 — 9,999	6.0	9.1	12.2	13.1	14.9
10,000 and over	2.8	4.4	5.3	5.5	6.5
Totals	100.0	100.0	100.0	100.0	100.0
Average income \$	4,016	4,607	4,922	5,072	5,317
Median income \$	3,517	4,054	4,371	4,533	4,866
Families and unattached individuals —					
Under \$1,000	13.1	10.9	10.7	10.1	10.1
\$ 1,000 — \$1,999	15.9	13.4	12.6	11.7	10.5
2,000 — 2,999	19.1	15.5	13.6	12.4	11.7
3,000 — 3,999	20.1	17.8	16.1	15.7	13.5
4,000 — 4,999	13.4	15.8	15.0	16.0	14.9
5,000 — 5,999	6.8	9.6	10.8	11.9	12.7
6,000 — 6,999	4.4	6.1	6.9	7.1	9.3
7,000 — 9,999	4.9	7.4	9.9	10.6	12.1
10,000 and over	2.3	3.5	4.3	4.5	5.3
Totals	100.0	100.0	100.0	100.0	100.0
Average income \$	3,526	4,045	4,309	4,447	4,665
Median income \$	3,095	3,573	3,814	4,006	4,282

^aIncome for the 1961 calendar year as reported in the 1962 Survey of Consumer Finances.
SOURCE: Unpublished data from Surveys of Consumer Finances.

On a current dollar basis, average family incomes rose by some 50 per cent and those of unattached individuals by some 55 per cent. When the data are converted to a constant dollar basis the real income increases, on the average, are 32 per cent for families and 37 per cent for unattached individuals.

CHART 10.1



It is evident from Table 10.3 and other tables in this chapter that the increases in real incomes were pervasive and that nearly all age and income groups experienced improvements in income position. Currently to delineate poverty, one arbitrary yardstick used is a family income of \$3,000. It is interesting to note that if the figure of a family income of \$3,000 expressed in 1961 dollars were used as a standard of poverty for 1951 as well as 1961, nearly two fifths of all non-farm families had incomes below this level in 1951. In 1961 this proportion was reduced to one fifth, representing a very substantial decline in the incidence of low family income over a period of eleven years. Improvements in incomes have continued since 1961 and it is probable that, currently, the proportion of families with incomes below \$3,000 in 1961 constant dollars is now less than the proportion in 1961.

It has been suggested that a middle-class level of living requires a family income of \$7,000 to \$8,000 or more. In 1951 less than one tenth of families had incomes of approximately \$7,000 or more in terms of 1961 purchasing power while in 1961 more than one fifth of families attained these income levels.

No indices exist that measure the effect of these improvements in the income distribution upon the level of living of Canadian families so that evidence of the impact of higher incomes upon the well-being of families must be sought in different areas. Even without statistics, casual comparisons of the Canada of 1961 and the Canada of 1951 must lead to the conclusion that in 1961 the Canadian society was a more affluent one. Statistics, however, provide some tangible proof of the changes that occurred. A male child born in 1951 had, at birth, an average life expectancy of 66.3 years and the life expectancy of a female child was 70.8 years. A boy born in 1961 could look forward to living 68.4 years and for girls the expectancy had risen to 74.2. Improvements in life expectancy can be taken as indicators of improvements in health services so that rising levels of living meant better health care in 1961 than in 1951. In the discussion of private returns to education (Chapter Five), statistics have been cited on the rise in school attendance of the male population aged 10 to 24. Some of the growth in income, then, has been allocated to providing children with better education than that of their parents.

A substantial proportion of the rising incomes of the 1950s went into improving the quality of the housing accommodation of families and into large investments in consumer durables such as automobiles, refrigerators and television sets. Statistics on housing characteristics and the ownership of consumer durables show striking changes between 1951 and 1961. No data exist on the age of homes from the 1951 Census but the 1961 Census indicates that 44 per cent of the homes occupied at the time of the Census were of postwar construction and were built between 1946 and 1961. In 1951, 13 per cent of all homes required major repairs, a ratio that dropped to six per cent in 1961. A comparison is made in Table 10.4 of changes in selected household facilities between 1951 and 1961.

TABLE 10.4 — Percentage of Houses with Selected Household Facilities, 1951 and 1961

Facility	1951	1961
	p.c.	p.c.
Furnace	48.0	67.5
Hot and cold running water	56.9	80.1
Cold water only	17.1	9.0
No running water	26.0	10.9
No bathtub or shower	39.2	8.8
Refrigerator	66.6	91.9
Automobile	42.3	68.4

SOURCE: Census of Housing 1951 and 1961.

Although in 1951 a substantial proportion of homes were without electricity, by 1961 most homes were electrified. By 1961, as well, over 80 per cent of households owned television sets and had telephone service as contrasted with 60 per cent in 1951, and the ownership of other durables such as automatic

dishwashers, clothes dryers and so forth was growing rapidly. The living circumstances of Canadian families in 1961 were much more comfortable than ten years previously and many commodities which ten or fifteen years earlier might have been considered to be luxuries were normal components of the level of living of the majority of Canadian families.

CHANGES IN COMPOSITION OF INCOME

The shift upward in the income distribution was accompanied by changes in the composition of income and in the characteristics of families at the various income levels. Table 10.5 shows the composition or sources of income by income level for the years 1951 and 1961, again in 1961 dollars. The various sources of income as a percentage of total income changed little between 1951 and 1961. Earned income and investment income declined slightly in importance as a percentage of total income while transfer payments and miscellaneous sources such as retirement pensions rose in importance. The increased proportion of transfer payments was probably largely attributable to the introduction of universal old age pension payments in 1952 to the population aged 70 and over.

Although little change occurred in the over-all income composition, changes in the composition of income at different income levels were significant, especially in the lowest and highest income groups. For example, in 1951 the groups of families with incomes below \$3,000 in 1961 dollars obviously contained a substantial proportion of families whose members worked. Although earned income constituted less than half of total income below \$1,000, it accounted for nearly 90 per cent of all income between \$2,000 and \$3,000. Families with incomes below \$1,000 were families dependent primarily upon transfer payments, pensions or investments. In contrast, in 1961, earned income accounted for less than half of family income below \$2,000 and even between \$2,000 and \$3,000 earned income had declined to 70 per cent of the total. Families whose incomes were below \$2,000 were primarily families dependent upon government social security and welfare payments. Thus, in 1951 real incomes of less than \$3,000 were usually those of working families while by 1961 this group of families tended to be primarily families whose members were outside the labour force.

In the upper income bracket, family incomes of \$10,000 or more, wages and salaries accounted for a larger proportion and net income from self-employment and investment income for a smaller proportion of aggregate family income in 1961 than in 1951. The proportion originating in wages and salaries rose from somewhat over half to two thirds and that originating in net income from self-employment declined from 30 per cent to 22 per cent. Investment income dropped from 16 per cent to nine per cent. In 1951, a substantial segment of families in this upper income bracket were families whose income came from investments or families of self-employed professionals or business proprietors. In 1961 the majority of families in this higher bracket were clearly families whose income came from wages or salaries — families whose heads were probably salaried professionals, in managerial occupations, or in other skilled occupations.

TABLE 10.5—Composition of Income by Income Level in 1961 Constant Dollars, 1951 and 1961

Income group (1961 constant dollars)	Wages and salaries	Net unincor- porated business income	Transfer pay- ments	Invest- ment income	Other income	Total
1951						
Families—						
Under \$1,000	31.9	11.4	37.1	13.0	6.6	100.0
\$ 1,000 — \$1,999	52.7	11.7	24.5	5.7	5.5	100.0
2,000 — 2,999	77.8	9.6	6.9	4.8	1.0	100.0
3,000 — 3,999	85.5	7.0	5.3	1.4	0.7	100.0
4,000 — 4,999	86.2	6.6	4.5	1.7	1.1	100.0
5,000 — 5,999	88.7	4.8	3.7	1.9	0.9	100.0
6,000 — 6,999	85.2	8.4	2.4	3.2	0.8	100.0
7,000 — 9,999	81.8	12.1	2.1	3.4	0.6	100.0
10,000 and over	53.5	29.5	0.8	15.7	0.5	100.0
Totals	78.8	10.7	5.2	4.3	1.1	100.0
Families and unattached individuals—						
Under \$1000	40.0	8.6	33.9	12.7	4.8	100.0
\$ 1,000 — \$1,999	62.6	9.2	16.9	5.7	5.7	100.0
2,000 — 2,999	79.9	8.9	5.9	4.3	1.0	100.0
3,000 — 3,999	85.8	6.6	5.3	1.6	0.7	100.0
4,000 — 4,999	85.6	7.0	4.4	1.9	1.1	100.0
5,000 — 5,999	88.2	5.0	3.6	2.2	1.0	100.0
6,000 — 6,999	85.1	8.6	2.3	3.1	0.8	100.0
7,000 — 9,999	81.7	12.3	2.1	3.4	0.6	100.0
10,000 and over	54.6	28.8	0.8	15.3	0.4	100.0
Totals	78.9	10.3	5.2	4.4	1.2	100.0
1961						
Families—						
Under \$1,000	36.2	-10.6	62.4	6.7	5.2	100.0
\$ 1,000 — \$1,999	33.8	6.9	50.2	4.3	4.8	100.0
2,000 — 2,999	57.6	12.0	22.7	4.0	3.8	100.0
3,000 — 3,999	75.9	9.9	9.7	2.1	2.4	100.0
4,000 — 4,999	83.7	6.9	6.4	2.1	0.8	100.0
5,000 — 5,999	86.1	6.5	4.8	1.7	0.9	100.0
6,000 — 6,999	87.5	5.7	4.2	1.9	0.7	100.0
7,000 — 9,999	86.3	7.1	3.3	2.1	1.1	100.0
10,000 and over	66.0	22.0	1.7	9.1	1.1	100.0
Totals	78.9	9.8	6.6	3.4	1.3	100.0

**TABLE 10.5 — Composition of Income by Income Level in 1961 Constant Dollars,
1951 and 1961 — concluded**

Income group (1961 constant dollars)	Wages and salaries	Net unincor- porated business income	Transfer pay- ments	Invest- ment income	Other income	Total
Families and unattached individuals—						
Under \$1,000	26.8	-0.5	65.0	5.6	3.2	100.0
\$ 1,000 — \$1,999	42.5	6.0	39.5	6.2	5.8	100.0
2,000 — 2,999	64.3	9.7	18.2	4.0	3.7	100.0
3,000 — 3,999	78.3	8.5	8.3	2.6	2.3	100.0
4,000 — 4,999	84.3	6.5	5.9	2.5	0.9	100.0
5,000 — 5,999	86.2	6.4	4.6	2.0	0.9	100.0
6,000 — 6,999	87.2	5.7	4.2	2.1	0.8	100.0
7,000 — 9,999	86.3	7.1	3.3	2.2	1.1	100.0
10,000 and over	65.6	21.9	1.7	9.6	1.2	100.0
Totals	78.5	9.3	7.0	3.7	1.5	100.0

SOURCE: Unpublished data from the Surveys of Consumer Finances.

**TABLE 10.6 — Percentage Distribution of Incomes of Families by Major Source of
Income and by Size of Income in 1961 Constant Dollars, 1951 and 1961**

Income group	1951			1961		
	Wages and salaries	Net un- incorporated business in- come	Other income	Wages and salaries	Net un- incorporated business in- come	Other income
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Under \$1,000	2.2	5.0	39.3	1.1	2.3	16.6
\$ 1,000 — 1,999	8.4	16.1	43.4	3.6	6.8	41.6
2,000 — 2,999	20.4	22.0	7.2	8.7	15.1	22.7
3,000 — 3,999	26.2	18.4	3.4	14.3	17.0	7.0
4,000 — 4,999	18.4	13.1	1.4	18.8	13.8	3.3
5,000 — 5,999	9.9	3.4	1.3	17.2	12.1	2.3
6,000 — 6,999	6.0	4.7	1.7	13.0	7.1	1.7
7,000 — 9,999	6.3	8.3	0.9	17.1	11.6	1.8
10,000 and over	2.2	9.0	1.4	6.1	14.1	2.9
Totals	100.0	100.0	100.0	100.0	100.0	100.0
Average income \$	4,160	4,892	2,066	5,617	6,165	2,573
Median income \$	3,725	3,375	1,247	5,188	4,638	1,803

SOURCE: Unpublished data from Surveys of Consumer Finances.

TABLE 10.7 — Percentage Distribution of Families by Employment Status of Head and by Size of Income in 1961 Constant Dollars, 1951 and 1961

Income group	1951			1961		
	Wage-earner	Self-employed	Not in labour force	Wage-earner	Self-employed	Not in labour force
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Under \$1,000	1.7	3.9	25.0	1.1	2.2	14.7
\$ 1,000 — \$1,999	7.5	18.2	27.7	4.0	5.2	29.1
2,000 — 2,999	20.3	20.3	14.6	8.7	14.2	18.3
3,000 — 3,999	27.1	17.9	11.9	14.3	13.7	11.2
4,000 — 4,999	18.7	12.8	8.9	19.1	12.7	7.7
5,000 — 5,999	10.0	4.4	4.8	17.4	12.8	5.4
6,000 — 6,999	6.1	4.7	3.2	13.0	9.3	4.5
7,000 — 9,999	6.4	9.7	2.5	16.9	14.0	6.4
10,000 and over	2.3	8.1	1.3	5.7	15.9	2.7
Totals	100.0	100.0	100.0	100.0	100.0	100.0
Average income ^a \$	a	a	a	a	a	a
Median income \$	3,756	3,425	1,903	5,156	5,132	2,290

^aNot available.

SOURCE: Unpublished data from Surveys of Consumer Finances.

FAMILY INCOMES BY MAJOR SOURCE AND BY EMPLOYMENT STATUS OF HEAD

As Tables 10.6 and 10.7 show, a classification of families by either the major source of the family income or by the employment status of the head suggests that relatively the greatest decline in the proportion of low-income families occurred among families whose major source of income was wages and salaries or whose heads were employees. Such families also reported the greatest increase in the proportion of families with incomes above \$10,000. This is consistent with the observations of the previous section that in 1961 wages and salaries were a more significant component of real incomes of \$10,000 or more than in 1951. In 1951 a constant dollar family income of \$2,000 was the approximate demarcation line of the bottom quintile of families while in 1961 approximately \$7,000 separated off the top quintile. The proportion of wage-earning families with real incomes below \$2,000 was more than halved between 1951 and 1961, dropping from 11 per cent to five per cent. Among the self-employed, the relative decline in the incidence of low incomes was somewhat less but even here it dropped by nearly half. Families dependent upon fixed incomes from sources such as pensions and transfer payments had a very high proportion with low incomes in both periods.

Only modest declines occurred in the incidence of low incomes among families dependent upon income from sources other than earnings or among

families whose heads were not in the labour force. For the latter, the proportion with incomes below \$2,000 was somewhat over half in 1951 and was still over 40 per cent in 1961. However, in many of these families, although the head was not in the labour force, other family members might be employed so that most of the family income might still originate in earnings. If families are classified by main source of income rather than labour force attachment of the head, over 80 per cent of families whose income came primarily from investments, pensions and transfer payments had real incomes below \$2,000 in 1951; this proportion dropped only to approximately 60 per cent in 1961.

The statistics suggest that the disparity between the incomes of families who were dependent upon sources other than earnings and the incomes of families who depended upon earnings widened over the period. As previously pointed out, few families in Canada derive most of their income from investments; the majority of families not dependent upon earned income tend to be dependent upon government assistance and government transfer payments of various types. Where, in 1951, approximately 42 per cent of families with constant dollar incomes below \$2,000 were families whose income primarily came from sources other than earnings, by 1961 this had risen to 55 per cent.

TABLE 10.8 Percentage Distribution of Family Income in 1961 Constant Dollars, by Sex of Family Head, 1951 and 1961

Income group	1951		1961	
	Male head	Female head	Male head	Female head
	p.c.	p.c.	p.c.	p.c.
Under \$1,000	5.1	19.8	2.3	14.5
1,000 – \$1,999	11.4	24.2	6.9	18.4
2,000 – 2,999	19.3	17.8	10.2	16.6
3,000 – 3,999	24.0	14.1	13.8	12.7
4,000 – 4,999	16.8	9.8	17.1	11.2
5,000 – 5,999	8.7	5.0	15.8	6.8
6,000 – 6,999	5.5	4.3	11.6	7.0
7,000 – 9,999	6.2	3.6	15.5	9.0
10,000 and over	2.9	1.4	6.7	3.7
Totals	100.0	100.0	100.0	100.0
Average income \$	4,124	2,813	5,457	3,823
Median income \$	3,592	2,337	4,982	3,039

SOURCE: Unpublished data from Surveys of Consumer Finances.

FAMILY INCOME BY SEX OF FAMILY HEAD

The previous discussion on the characteristics of low-income families noted the significance of age and sex as characteristics associated with the incidence of

low income in 1961 when approximately one half of low-income families had female heads or male heads in the older age groups. Table 10.8 suggests that families headed by women also showed less improvement in real incomes between 1951 and 1961 than families with male heads.

In 1951 approximately one fifth of families with real incomes of less than \$2,000 had female heads while by 1961 this ratio was one quarter. The decline in the proportion of very-low income families headed by women was from 45 per cent to 33 per cent while the proportion of low-income families with male heads was almost halved. The effect of an undoubling of family members to create new family units, especially among the aged, has already been discussed. It is possible, then, that the persistence of low income among families such as the aged and broken families is a reflection of the increased likelihood of such families living alone rather than with other relatives. Without further evidence, it cannot be assumed that the share of aggregate income of such persons or families has declined but rather that their living circumstances have changed. The effect of undoubling seems to have been to widen income differentials between families maintaining their own homes and depending upon working members for income, and families maintaining a separate residence and depending upon other sources of income.

INCOME CHANGES BY AGE OF HEAD

Table 10.9 shows the real income distribution of family incomes by age of family head for selected years. The incomes of all age groups were higher in 1961 than in 1951 but it is evident from the table that the most substantial improvements in real incomes occurred between 1951 and 1957; the change in incomes by age group between 1957 and 1961 was erratic with the youngest and oldest age groups showing little change in average incomes during these four years.

This slowing down of income growth was undoubtedly a reflection of the downturn in economic activity which began in 1957. The year 1951, when the first survey was taken, was a period of exceedingly low unemployment; over the year the average rate of unemployment was only 2.4 per cent of the labour force. The years 1952 and 1953 were also periods of full employment and in 1954, although the extent of unemployment was rising, it was still only 4.6 per cent of the labour force. This dropped to an average annual rate of 3.4 per cent in 1956 and rose again to 4.6 per cent in 1957. The period 1957 to 1961 was marked by unemployment rates that were high relative to those between the end of the War and 1957. In the years 1958, 1960 and 1961, the unemployment rate averaged approximately seven per cent over the year and in 1959 the rate was six per cent. In periods of substantial unemployment, it is the youngest and the oldest workers who tend to be most affected by unemployment and whose unemployment rates are highest. The young have difficulty in entering the labour force upon completion of schooling and in the case of older workers, although unemployment rates are much lower than those of the young, when unemployment occurs it is more likely to be of long duration. The groups between ages 25 and 44 are those upon whom unemployment tends to have

TABLE 10.9—Percentage Distribution of Families by Income Group in 1961 Constant Dollars, and by Age of Head, Selected Years 1951-1961

Year and age of head	Under \$1,000	\$1,000-1,999	\$2,000-2,999	\$3,000-3,999	\$4,000-4,999	\$5,000-5,999	\$6,000-6,999	\$7,000-9,999	\$10,000 and over	Total	Average income	Median income
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	\$	\$
1951—Under 25	11.5	9.9	26.7	28.3	15.8	2.9	2.4	2.4	—	100.0	3,020	3,067
25-34	4.1	8.9	24.4	30.2	16.9	7.2	3.3	3.0	2.0	100.0	3,683	3,417
35-44	2.4	8.2	17.4	30.5	19.2	9.7	5.2	5.2	2.3	100.0	4,403	3,721
45-54	3.5	9.1	17.0	18.9	18.6	10.9	8.3	9.2	4.5	100.0	4,639	4,081
55-64	7.1	15.8	18.8	16.1	13.6	7.8	6.9	11.0	2.9	100.0	4,091	3,516
65 and over	18.9	27.0	17.0	13.5	9.3	5.7	3.3	2.7	2.6	100.0	2,991	2,241
1954—Under 25	5.5	9.0	17.9	29.3	21.7	5.2	5.9	5.2	0.3	100.0	3,717	3,601
25-34	2.9	6.9	15.6	24.2	23.4	12.5	6.6	5.5	2.4	100.0	4,376	4,017
35-44	3.1	7.9	14.1	19.9	21.5	12.5	8.2	9.2	3.7	100.0	4,614	4,233
45-54	3.0	6.7	12.0	18.1	16.7	14.6	8.6	13.9	6.4	100.0	5,326	4,611
55-64	4.6	9.4	14.4	17.1	13.0	11.6	9.2	13.6	7.1	100.0	5,213	4,346
65 and over	11.5	26.7	18.9	13.9	11.4	5.2	3.6	4.6	4.2	100.0	3,492	2,624
1957—Under 25	2.3	8.8	20.5	23.4	16.4	14.8	7.4	5.8	0.6	100.0	4,065	3,786
25-34	2.5	6.6	11.7	18.9	24.6	15.3	9.1	8.7	2.7	100.0	4,693	4,419
35-44	2.7	6.2	12.3	17.6	19.9	15.9	8.2	12.9	4.3	100.0	4,982	4,563
45-54	1.7	6.5	11.4	14.6	15.3	11.7	11.1	18.6	9.1	100.0	5,812	5,043
55-64	6.1	9.6	12.2	16.8	13.8	12.4	7.4	12.9	8.8	100.0	5,382	4,384
65 and over	8.4	32.6	17.6	12.1	7.4	5.1	4.3	8.4	4.2	100.0	3,613	2,511
1959—Under 25	3.2	9.1	18.4	21.3	24.6	11.4	5.4	6.6	—	100.0	4,004	3,906
25-34	1.3	5.6	10.7	20.2	23.0	18.4	8.2	10.7	1.8	100.0	4,782	4,530
35-44	1.5	4.6	8.8	16.6	20.9	18.3	9.5	13.7	6.2	100.0	5,507	4,885
45-54	1.9	5.7	10.2	14.9	16.6	12.7	11.2	17.7	9.1	100.0	5,776	5,055
55-64	4.7	8.0	12.7	15.3	15.6	11.1	8.0	15.4	9.2	100.0	5,439	4,596
65 and over	9.0	30.3	18.1	11.2	9.5	6.1	4.2	8.5	3.2	100.0	4,608	2,591

1961 - Under 25	4.4	9.6	17.2	21.3	19.0	13.5	7.6	6.6	0.8	100.0	4,038	3,895
25-34	1.6	4.6	9.8	16.4	21.6	18.8	12.3	11.4	3.4	100.0	5,057	4,797
35-44	1.8	3.8	8.4	12.3	16.9	18.7	13.1	18.7	6.4	100.0	5,737	5,313
45-54	3.0	4.3	8.8	12.0	16.3	13.5	13.3	18.8	10.1	100.0	5,985	5,400
55-64	4.4	8.6	12.3	13.2	14.0	11.5	9.2	15.8	11.1	100.0	5,809	4,826
65 and over	8.8	27.4	16.8	12.7	9.1	7.2	5.6	8.9	3.5	100.0	3,737	2,809

SOURCE: Unpublished data from Surveys of Consumer Finances.

the least impact. Income increases in this age group were higher than the income increases of families with heads aged 45 and over, where the over-all rise was modest relative to the 1951-1957 period.

CHART 10.2

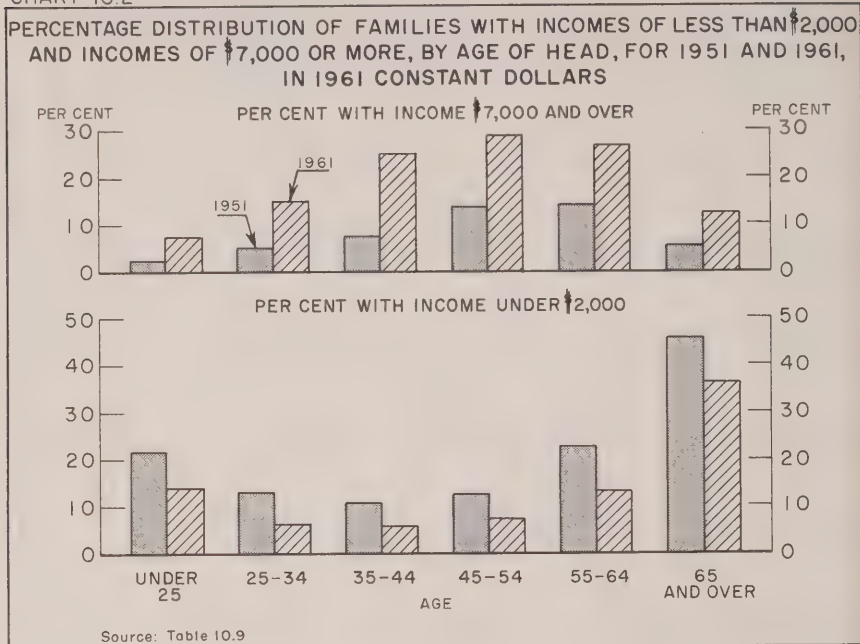


TABLE 10.10 — Percentage Distribution of Families with 1961 Constant Dollar Incomes Below \$2,000 and Above \$7,000, by Age of Family Head, 1951 and 1961

Age of head	Below \$2,000		\$7,000 and over	
	1951	1961	1951	1961
	p.c.	p.c.	p.c.	p.c.
Under 25	21.4	14.0	2.4	7.4
25 - 34	13.0	6.2	5.0	14.8
35 - 44	10.6	5.6	7.5	25.1
45 - 54	12.6	7.3	13.7	28.9
55 - 64	22.9	13.0	13.9	26.9
65 and over	46.4	36.2	5.3	12.4
Totals	18.8	11.2	8.8	21.4

SOURCE: Table 10.9.

In most age groups there were considerable declines in the proportion of very low incomes and substantial increases in the proportion of families with higher incomes. Table 10.10 and Chart 10.2 show the percentages of families with incomes below \$2,000 and above \$7,000.

These statistics indicate that, although the incidence of higher incomes among families in the oldest age brackets had more than doubled between 1951 and 1961, the decline in the proportion of low incomes was less than for any other age group despite the fact that real incomes on average were one quarter higher in the latter year. The greatest relative change occurred among families with heads in the 25 to 44 age brackets where the proportion with incomes below \$2,000 was halved while above \$7,000 the percentages approximately tripled.

Another approach to the examination of income change by age group is to trace the experience of each age cohort from 1951 to 1961. For example, families whose heads were aged 25 to 34 in 1951 would have heads aged 35 to 44 in 1961.⁹ Therefore, comparisons of the income of the latter group with the former would show the real income change experienced by that particular cohort. The 1951-1961 income experiences of the 1951 age cohorts are summarized as follows:

1951 age cohort	Ratio of 1961 to 1951 average incomes
Under 25	1.68
25 - 34	1.56
35 - 44	1.36
45 - 54	1.25
55 - 64	0.91

These comparisons show that there were marked differences in the income experiences of each age group; the younger the group the greater the rise in incomes, with those under age 25 a decade later receiving real incomes which were, on average, some two thirds higher than in 1951. It should be noted that the incomes of the 55-to-64-year age group were compared with the incomes of families with heads aged 65 and over in 1961, an age group which would include more than that particular cohort. It is possible, then, that there may not have been an income decline and that this group may have been in receipt of real incomes equivalent to those of the previous decade. This suggests, however, that families whose heads were in the pre-retirement age group did not benefit from the over-all improvements in incomes. The decline in the participation rates of the labour force aged 65 and over and the increasing dependence of the older population on government pensions is commented upon in previous chapters. Thus, although pensions have

⁹ Because of heavy immigration and of emigration, the composition of the age cohorts in 1951 would differ from the same age cohorts in 1961. Some of the 1951 members would have died or emigrated and the 1961 group would contain immigrants arriving in the 1950s.

risen, income from employment has declined in importance as a source of income so that the net effect over this period would appear to be an unchanging real income for this age group.

The previous chapter comments upon the fact that there may have been an undoubling of older family units between 1951 and 1961 and this may be a factor in the very moderate decline in the proportion of older family units in low-income brackets between 1951 and 1961. The shift away from the doubling-up of older persons with younger generations toward the maintenance of independent living arrangements and the effect of this upon the income distribution cannot be detected from the income statistics as tabulated at various points of time. If, for example, in 1951 an older couple with an income of \$1,000 lived with a married son of age 35 with an income of \$4,000, these would appear in the statistics as one family with a head aged 35 and a family income of \$5,000. If a few years subsequently, because of the introduction of pensions and other reasons, the income of the older couple rose to \$2,500 while the income of the son rose to \$6,000 and, at the same time, the older couple moved into their own home then the two family units would exist for statistical purposes. The older family would have an income of \$2,500 and the younger family would have an income of \$6,000. This result would be an apparent increase in the number of low-income family units because of the emergence of the older couple as separate statistical entities. This type of undoubling was probably most frequent among the elderly with very low incomes and would account for some of the relative stability of low-income population among families with heads aged 65 and over. Analysis of the income distribution on a more restricted family definition — for example, the income distribution of married couples by age of head would undoubtedly indicate much greater changes in the incomes of the older population than the above tables show.

Older persons not in families showed proportionately greater increases in average real incomes than did families, although median incomes of both groups showed similar increases. In the absence of adequate data on the labour force and other characteristics of this group, no explanation is possible as to why this should be so. Average and median incomes are summarized in Table 10.11.

One significant aspect of the characteristics of this group is the change in age structure between 1951 and 1961. As Chapter Six points out, this group is heavily weighted with the young and old although the elderly have increased as a proportion of the total group. In 1951, approximately 17 per cent of unattached individuals were under age 25 and 23 per cent were over age 65; in 1961 the proportion under age 25 was still 17 per cent but the 65-and-over group were 32 per cent of the total. To an increasing extent, then, persons living alone tend to be the elderly and, of these, women also constitute a growing proportion.

**TABLE 10.11—Average and Median Incomes of Unattached Individuals in 1961
Constant Dollars, Selected Years 1951-1961**

Age group	1951	1954	1957	1959	1961
	\$	\$	\$	\$	\$
Average income —					
Under 25	1,255	1,606	1,648	1,734	2,024
25 — 34	1,962	2,513	2,642	2,877	2,993
35 — 44	1,961	2,250	2,847	2,654	2,921
45 — 54	1,793	1,980	2,260	2,562	2,608
55 — 64	1,551	1,960	1,927	2,005	2,093
65 and over	862	1,206	1,165	1,298	1,378
Median income —					
Under 25	1,273	1,546	1,484	1,718	1,883
25 — 34	1,971	2,196	2,586	2,885	2,911
35 — 44	1,881	2,126	2,653	2,576	2,847
45 — 54	1,704	1,792	2,018	2,301	2,430
55 — 64	1,224	1,537	1,563	1,592	1,641
65 and over	690	779	776	797	831

SOURCE: Unpublished data from Surveys of Consumer Finances.

**TABLE 10.12 — Percentage Distribution of Incomes of Families in 1961 Constant Dollars
by Size of Family, 1951 and 1961**

Income group	1951				1961			
	Families of				Families of			
	2 per- sons	3 per- sons	4 per- sons	5 or more per- sons	2 per- sons	3 per- sons	4 per- sons	5 or more per- sons
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Under \$1,000	12.8	5.6	3.2	2.1	7.2	3.4	1.2	1.4
1,000 — \$1,999	20.2	11.5	7.4	8.7	15.9	6.9	4.0	4.4
2,000 — 2,999	22.3	19.7	18.6	15.9	14.7	9.6	8.8	9.5
3,000 — 3,999	19.8	25.2	24.4	24.5	13.7	14.0	13.0	13.2
4,000 — 4,999	12.4	15.4	19.7	18.4	14.0	16.2	19.0	17.5
5,000 — 5,999	5.3	10.4	9.0	9.7	10.6	15.9	18.4	16.0
6,000 — 6,999	3.2	5.0	7.2	6.7	8.5	11.7	13.2	12.1
7,000 — 9,999	2.2	5.1	8.1	9.4	11.0	16.7	14.8	17.1
10,000 and over	1.8	2.1	2.4	4.6	4.6	5.6	7.5	7.8
Totals	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Average income \$	3,066	4,145	4,307	4,737	4,464	5,319	5,766	5,728
Median income \$	2,762	3,524	3,852	3,951	3,890	4,994	5,198	5,170

SOURCE: Unpublished data from Surveys of Consumer Finances.

INCOME CHANGE BY FAMILY SIZE

By family size, two-person families had relatively the largest increases in average income and incomes of families with five or more persons showed the smallest percentage increases. Despite this, the proportion of two-person families with real incomes below \$2,000 dropped less than for large families. Families of four or five or more persons showed the largest declines in incomes below \$3,000. Since data are not available on the age of the head and on the family life cycle characteristics of families by family size, it is not possible to determine the cause of these differences in income movements by family size. The high birth rates of the postwar years may mean that the age distribution of family heads of larger families may have changed, with a higher proportion of young families in 1961 as contrasted with 1951. If, for example, large families in 1961 had a higher proportion of family heads under age 35 than in 1951, this might explain why average incomes of large families showed less change than families of other sizes.

TABLE 10.13—Percentage Distribution of Incomes of Families in 1961 Constant Dollars, by Region, 1951 and 1961

Income group	Atlantic Provinces	Quebec	Ontario	Prairie Provinces	British Columbia
	p.c.	p.c.	p.c.	p.c.	p.c.
1951 —					
Under \$1,000	10.9	5.0	4.5	9.3	6.3
\$ 1,000 — \$1,999	24.3	10.8	8.5	13.9	14.7
2,000 — 2,999	25.6	22.3	14.9	21.8	15.8
3,000 — 3,999	22.3	23.0	23.9	20.3	26.2
4,000 — 4,999	6.9	15.4	19.9	13.5	19.8
5,000 — 5,999	4.5	9.7	9.4	7.3	7.4
6,000 — 6,999	2.2	5.5	7.2	4.4	4.3
7,000 — 9,999	2.1	5.3	8.3	6.9	3.3
10,000 and over	1.2	3.0	3.4	2.5	2.2
Totals	100.0	100.0	100.0	100.0	100.0
Average income \$	2,858	4,003	4,435	3,706	4,169
Median income \$	2,578	3,517	3,925	3,246	3,504
1961 —					
Under \$1,000	6.3	3.7	2.0	4.4	2.9
\$ 1,000 — \$1,999	15.8	7.7	5.3	9.5	8.3
2,000 — 2,999	18.2	11.1	8.4	12.0	9.4
3,000 — 3,999	17.2	16.4	10.6	14.7	13.1
4,000 — 4,999	13.9	16.6	16.7	18.7	15.8
5,000 — 5,999	9.0	15.8	16.8	13.2	14.9
6,000 — 6,999	7.3	8.8	14.1	10.5	12.9
7,000 — 9,999	8.9	13.4	18.7	12.6	14.3
10,000 and over	3.5	6.7	7.3	4.4	8.4
Totals	100.0	100.0	100.0	100.0	100.0
Average income \$	4,156	5,294	5,773	4,836	5,491
Median income \$	3,591	4,652	5,389	4,485	5,038

SOURCE: Unpublished data from Surveys of Consumer Finances.

TABLE 10.14—Percentage Distribution of Incomes of Families in 1961 Constant Dollars, by Size of Municipality, 1951 and 1961

Income group	1951		1961	
	Population 30,000 or more	Population under 30,000	Population 30,000 or more	Population under 30,000
	p.c.	p.c.	p.c.	p.c.
under \$1,000	4.2	8.9	1.9	5.5
1,000 – \$1,999	8.1	18.0	4.8	12.6
2,000 – 2,999	16.1	23.2	7.4	15.8
3,000 – 3,999	23.7	22.6	12.2	16.0
4,000 – 4,999	18.7	13.1	16.9	16.2
5,000 – 5,999	10.7	5.5	16.5	12.8
6,000 – 6,999	6.8	3.6	13.3	8.3
7,000 – 9,999	8.1	3.5	18.8	9.1
10,000 and over	3.6	1.6	8.3	3.7
Totals	100.0	100.0	100.0	100.0
Median income \$	3,911	2,996	5,378	3,994

SOURCE: Unpublished data from Surveys of Consumer Finances.

REGIONAL INCOME CHANGES

Tables 10.13 and 10.14 show the family income distribution in 1951 and 1961 by region of residence and by size of place of residence – population 30,000 and over or under 30,000. Experience with survey data over time has indicated that regional income estimates from the surveys show more erratic trends than statistics on income by other characteristics and, as a result, the statistics must be interpreted with more caution. In 1951, as well, the data are based upon smaller samples than the data collected in subsequent surveys. Table 10.13 shows that the average family income rose more in the Atlantic Provinces than in the other regions where the changes were similar although the rise in median incomes was more in line with changes in Ontario and the Prairie Provinces. An examination of per capita personal income by region as estimated for National Accounts purposes shows greater increases in the Atlantic Provinces during this period than in Central or Western Canada so that the survey may, in fact, reflect the trend correctly. However, despite possibly greater improvements in these provinces the gulf between the income distribution in this region and the rest of Canada was still very wide in 1961. The proportion of families with real incomes below \$2,000 in 1951 and 1961 by region was as follows:

Regions	1951	1961
	p.c.	p.c.
Atlantic Provinces	35.2	22.1
Quebec	15.8	11.4
Ontario	13.0	7.3
Prairie Provinces	23.2	13.9
British Columbia	21.0	11.2

In 1961, average and median real incomes in the Atlantic Provinces appeared to have risen only to levels prevailing in Canada as a whole in 1951. The proportion of families with real incomes below \$2,000 in 1961 was still higher than the proportion of families below this level in all other regions in 1951 except the Prairie Provinces. In 1961, the median family income of approximately \$3,600 was nearly a thousand dollars less than the median non-farm family income in the Prairie Provinces. The proportion of families with incomes below \$2,000 was double that of British Columbia and some three times that of Ontario. Real family income in the Atlantic Provinces in 1961 had still not caught up to real income levels in the wealthier provinces in 1951.

The sample data do not permit a fine classification of income by size of place of residence so that it is not possible to carry out any analysis as to whether differences between the rural and urbanized areas have changed. Table 10.14 shows income distributions for families in cities of 30,000 or more population and families resident in areas with populations below 30,000; the latter group would include rural residents. In 1951, family incomes below \$2,000 included 12 per cent of families in the larger urban areas but this was halved to six per cent by 1961. At the upper tail, 27 per cent of families residing in larger urban centres had incomes above \$7,000 in 1961 in contrast to only 12 per cent in 1951. At the same time the percentage of the population residing in centres with populations above 30,000 rose from 46 per cent to 54 per cent.

In the smaller urban centres and rural areas the percentage of families with incomes below \$3,000 declined almost 30 per cent to nearly 20 per cent of all families, much less relatively than in the larger cities. The proportion with income above \$7,000 rose from five per cent to 13 per cent; the median income in 1961 was only \$4,000.

In summary, the 11 years from 1951 to 1961 were marked by very important gains in real incomes with the greatest improvements occurring between 1951 and 1957. The gains did not appear to be equally distributed, the elderly and other families whose members were outside the labour market losing ground relative to the working population. The youngest families were the greatest beneficiaries in the upward movement of real incomes.

Chapter Eleven

INCOME INEQUALITY IN CANADA

1. TRENDS IN INCOME INEQUALITY

Little is known about long-run changes in the relative distribution of income, because such income statistics as exist are of recent origin. Studies of the income distribution in countries at different stages of economic development suggest that incomes are more equally distributed in more economically advanced countries than in underdeveloped countries and that in the more advanced economies the long-run trend has been toward greater equality of income.¹ However, the trends toward greater equality have not been continuous; in the United States, for example, although substantial changes occurred in the distribution of income between 1929 and 1944, little change is evident since then. The hypothesis has been advanced that the changes were attributable to a number of factors: improved employment opportunities, structural changes in the labour market which diminished skill differentials, the effects of government policies in redistributing incomes and shifts in the composition of income which resulted in a decline in the relative importance of property income, and a rise in income derived from employment.

All of these trends are evident in the Canadian economic structure. Between 1929 and 1940 a substantial proportion of the labour force experienced unemployment. In 1929, unemployment averaged less than three per cent of the labour force and by 1933 the proportion had risen to 19 per cent. Unemployment declined from this very high level until it dropped to a rate of less than one and a half per cent in 1944. As the previous chapter indicated, the immediate postwar years were characterized by low rates of unemployment and, although the unemployment rate rose during the latter part of the 1950s, the degree of unemployment was still far below the unemployment rates of the prewar decade.

The previous chapter has commented upon the changing composition of the labour force and the higher educational attainment of the modern labour force as contrasted with that of the inter-war period. Further, studies by labour economists have concluded that differentials in the earnings of skilled and unskilled workers narrowed between 1931 and 1951.²

¹ See, for example, the discussion by Irving B. Kravis, *The Structure of Income* (University of Pennsylvania, 1962) Chapters Vi and VII, and the statistics published in Herman P. Miller, *Trends in the Income of Families and Persons in the United States: 1947 to 1960* (Bureau of the Census, Washington, 1963).

² See Sylvia Ostry, "Wages in Canada: The Occupational Structure" in H.D. Woods and Sylvia Ostry, *Labour Policy and Labour Economics in Canada* (Toronto: MacMillan of Canada, 1962), Chap. XV.

CHANGES IN STRUCTURE OF PERSONAL INCOME

The over-all effect of government policies on income distribution is evident in examining personal income and personal disposable income for the prewar and postwar periods. In 1929, only 2.0 per cent of total personal income originated in government transfer payments; in 1961 this ratio was 12.1 per cent. This change in the importance of transfer payments in aggregate income was attributable to the enactment of a series of major universal social security schemes—unemployment insurance coverage for the majority of paid workers, family allowance payments for all families with children under age 16, old age pension payments to all persons aged 70 and over and means-test pensions to those aged 65 to 69, and universal hospital insurance coverage. This expansion of social security coverage was financed, to a considerable extent, by much greater use of direct personal taxation as a source of funds. In 1929 personal direct income taxes amounted to 0.7 of one per cent of total personal income and in 1961 to 7.5 per cent of personal income. As Chapter Eight indicates, lower income groups receive a disproportionate share of those transfer payments which are money payments of the various levels of government. At the same time, direct taxes are imposed only after certain minimum exemptions are granted and the taxes imposed upon taxable income are progressive rather than a flat rate. This means that the share of lower income groups in taxes paid is less than their share of the total income while the share of higher income groups is greater. The net effect is a redistribution of income in favour of lower income groups, the extent of which is discussed in more detail later in this chapter.

TABLE 11.1—Percentage Distribution of Personal Income^a by Source, Selected Years 1931-1961

Income source	1931	1941	1951	1961
	p.c.	p.c.	p.c.	p.c.
Wages, salaries and supplementary labour income . . .	65.9	60.5	61.7	63.8
Military pay and allowances	0.2	6.6	1.3	1.9
Net income received by farmers from farm production	3.2	7.9	12.3	3.4
Net income of non-farm unincorporated business . . .	11.6	10.9	9.6	8.0
Interest, dividends and net rental income of persons	15.1	10.6	8.4	10.6
Transfer payments—				
From governments	3.9	3.3	6.5	12.1
From corporations	0.1	0.2	0.2	0.1
Totals	100.0	100.0	100.0	100.0
Income taxes as a percentage of personal income . . .	0.9	4.1	5.6	7.5

^aThe Personal Income Concept is discussed in Appendix B.

SOURCE: *National Accounts Income and Expenditures* for selected years.

The increasing share of aggregate income originating in transfer payments has already been commented upon. During the period 1931-1961 changes also occurred in the shares of income originating in other components. Table 11.1 shows the sources of personal income in the census years between 1931 and 1961. The 193

nd 1941 statistics were distorted by depression in the former year and the Second World War in the latter. In 1931, because of the depression along with unprecedented crop failures, agricultural income declined sharply as a proportion of total personal income; between 1926 and 1928 the net income of agriculture accounted for 14 to 15 per cent of total personal income. The decline in agricultural income was more acute than in other components, the shares of which thus rose when expressed in percentage terms. In the 1926-28 period, for example, wages and salaries were only 59 per cent of aggregate personal income, net unincorporated business income 12 to 13 per cent, and investment income approximately 12 per cent. In the pre-depression years transfer payments were approximately two per cent of total personal income. The 1941 figures reflect wartime circumstances, when an unusually high proportion of personal income originated in military pay and allowances; in that year transfer payments were relatively less significant than in 1931. In general, since the 1920s wages and salaries and transfer payments have become more important sources of income while net income from agriculture and from self-employment and investment income have declined in relative importance. The greatest changes have occurred in respect to transfer payments and agricultural income, the declines in the proportion of income originating in unincorporated businesses and investment income being more moderate. As the discussion on the earnings of the labour force in Chapter four indicated, the distribution of earnings of the self-employed is more unequal than the earnings of wage and salary earners. Similarly, farm income appears to be less equally distributed than wages and salaries. Although investment income is reported widely, a disproportionate portion of it is received by upper income groups. Thus, the long-run trend in Canada has been an increase in the importance of the more equally distributed type of earned income (wages and salaries) and transfer payments which tend to go to low-income groups, and a decline in the importance of less equally distributed sources of income—income from self-employment and investment income.

INCOME INEQUALITY CHANGES 1931-1951

Canada, then, has shared the American experience since the 1920s—an economy characterized by very substantial unemployment during the 1930s with much more moderate unemployment in the postwar years, a diminution in skill differentials among the labour force, a growing government role in redistributing incomes, and a change in the composition of incomes. The effect of these trends has undoubtedly been in the direction of greater equality in the income distribution of the postwar as compared with the prewar period. However, the lack of comprehensive income data for the prewar period makes a comparison of prewar and postwar inequality impossible. The only comparable data available on a family basis are the wage and salary earnings of families whose heads were wage and salary earners for 1931 from the 1931 Census of Canada and for 1951 from a sample

survey of families.³ Comparisons of the distribution of the relative distribution of wages and salaries of such families by quintiles showed the following pattern.

TABLE 11.2—Percentage Distribution of Wages and Salaries of Wage and Salary Earning Families, by Quintiles, 1930-1931 and 1951

Quintile	Percentage share of wages and salaries	
	1930-1931	1951
First quintile	5.3	8.0
Second quintile	11.3	13.9
Third quintile	17.3	17.9
Fourth quintile	23.5	22.6
Fifth quintile	42.6	37.5

SOURCE: Simon A. Goldberg and Jenny R. Podoluk, "Income Size Distribution Statistics in Canada", *Income and Wealth, Series VI*, International Association for Research in Income and Wealth (Bowes and Bowes, London, 1957) p. 163.

The statistics suggest that the distribution of wage earnings among wage-earning families became somewhat more equal between 1931 and 1951; the share of the upper quintile declined and the share of the fourth quintile was also somewhat lower. The shares of the three bottom quintiles were higher with the most marked change occurring in the proportion of wages and salaries received by the lowest quintile. In the absence of data on the extent of unemployment, the occupational structure, the extent of family participation in the labour force and other factors that affect the distribution of family earnings, no conclusions are possible as to why the relative distribution has altered. The data suggest, however, that among wage-earning families, earnings were more equally distributed in the postwar than in the prewar period. Further, in 1951 transfer payments such as unemployment insurance and family allowances might also have been an important factor in assisting lower income groups; such payments were not available in 1931. It is possible, then, that the lower quintile's share of total income might have risen more than the statistics in Table 11.2 indicate. Between 1931 and 1951, too, the self-employed were a diminishing proportion of the labour force so that wage- and salary-earning families were a higher proportion of all working families in 1951. This would also result in a more equal income distribution among families with heads in the labour force in 1951 than in 1931.

³ A more thorough comparison of the 1931 and 1951 distributions of earnings may be found in the paper by Simon A. Goldberg and Jenny R. Podoluk, "Income Size Distribution Statistics in Canada", *Income and Wealth, Series VI*, International Association for Research in Income and Wealth (London: Bowes and Bowes, 1957).

2. INCOME INEQUALITY 1951-1961

Although historical trends in income inequality cannot be examined, the accumulation of data since 1951 from surveys and the 1961 Census makes possible analysis of some aspects of the distribution of income in the postwar period.

MEASUREMENT OF INEQUALITY

A characteristic of most income distributions is that income is unequally distributed; theoretically, perfect equality in a distribution would mean that each unit, the individual or the family or the household, would have exactly the same income. However, a distribution that is equal on one basis automatically shows inequality on another basis. For example, if each person in the country had the same income, then inequality would exist in family incomes because families differ in size. Since it is recognized that the per capita income required by families to maintain particular levels of living is less in larger families than in smaller families, the result of an equal distribution of incomes on an individual basis would be to allow larger families to attain higher levels of living than smaller families. Inequality, then, is inevitable in some income distributions and the extent of inequality will depend upon the type of distribution studied.

For example, incomes are more unequally distributed among individuals than among families. This is true whether the bases of comparison are all adult individuals or only individuals in receipt of incomes. Much of the adult population consists of children resident with parents and still attending school or married women who are not working. As Chapter Three indicated, among the population aged 15 and over, 28 per cent had no incomes during the census year. Even among individuals with incomes, many, especially women, have very low incomes. The reasons for low incomes among women, such as intermittent attachment to the labour force, have already been commented upon. On the other hand, virtually all families had some income and incomes were more equally distributed among families than among individuals. However, the use of families rather than individuals as the unit of measurement for comparisons of the degree of inequality at different points of time presents problems in the interpretation of changes because the characteristics of families may change. This problem has been discussed in the two previous chapters in connection with the older population—the doubling that appears to have occurred through time as the income position of the older population improved.

Changes in family structure, then, present one major problem in the interpretation of income inequality; the other major problem is the definition of income. It has been stated: "When there are significant changes in the methods by which persons receive their incomes, conventional methods of measuring income may fail to reflect the impact of such changes".⁴ Most income distributions such as

⁴ George Garvy, *A Report on Research on Income Size Distribution in the United States* (New York: National Bureau of Economic Research, 1955).

those being considered in this monograph are distributions of money income. Through time, the importance of money income as an indicator of economic well-being changes. In less-developed economies many needs may not be met by purchases in the market place; food and clothing, for example, may be produced by the family or household rather than purchased. The exclusion of income in kind, then, may result in an under-assessment of the income shares of some groups. The exclusion of income in kind from statistics for the non-farm population probably has little effect on the conclusions that can be drawn about inequality. However, other exclusions may be much more important.

The National Accounts in measuring personal income include net imputed rental value of owner-occupied homes.⁵ As has been pointed out, a substantial proportion of low-income families consists of the aged, the majority of whom own their own homes, usually free of indebtedness. Because of this, they may be relatively better off than low-income families whose heads are in younger age groups and less likely to own a home. The inclusion of an imputation for home ownership in income statistics would probably raise the share of lower income groups.

More important to the interpretation of trends in the income distribution are changes in methods of income disbursement, which have occurred to a considerable extent because of the much more progressive taxation of the war and postwar years. A direct wage increase negotiated by a union becomes taxable when received as earnings but negotiated fringe benefits are not. It is now traditional for wage agreements to be announced as costing an employer so much in wage-rate increases and so much for fringe benefits. If an employer pays his employees \$100 per year out of which employees must pay their own medical insurance, the \$100 is taxable income for the employee. If the employer pays for the insurance himself this is not taxable income to the employee. In 1931, supplementary labour income was 1.8 per cent of total labour income; in 1961 this proportion was 4.3 per cent.

In executive positions, compensation may take the form of providing free automobiles for personal use, payment of club membership, the provision of stock options which allow for capital gains, and deferral of income payments until after retirement by the setting of special pension provisions.⁶ Another form of tax-escape income is capital gains, which in Canada have been traditionally tax-free. It has been suggested in the United States that the apparent decline in the income shares of the upper income groups between the prewar and postwar period is not as substantial as existing statistics suggest because of factors such as capital gains.⁷

⁵ National Accounts concepts are discussed in more detail in Appendix B.

⁶ The importance of some of these for senior executives in large corporations was illustrated when it was revealed recently that a corporation president who entered politics received a tax free settlement of half a million dollars in compensation of future benefits due him for pensions, etc.

⁷ For a summary of American research on the subject see Irving B. Kravis, *The Structure of Income* (University of Pennsylvania, 1962), Chap. VI, pp. 202-215.

The policies of corporations to let shareholders receive their benefits in the form of capital gains rather than through the distribution of dividend income which largely accrues to upper income groups is one important reason. The beneficiaries of the various types of tax-escape income are more likely to be the middle and upper income groups rather than the lower income groups and income distributions constructed to include such quasi-income would probably show a more unequal distribution of income than a distribution measured on a money income basis.

The only income distribution statistics available in Canada are money income distribution; since money income would be the largest component of any broader income definition over relatively short periods, such as a decade, such distributions may not be too unsatisfactory as indicators of trends in inequality as the relationship between money income and other types of receipts may not change significantly over short periods.

QUINTILES AND LORENZ CURVES

To examine income inequality and possible changes in income inequality it is useful to standardize income distributions in some way or to express the statistics in tabular or chart form in such a way that comparisons through time can be made readily. Two methods of comparing data are used in this chapter: comparisons by quintiles and comparisons of Lorenz Curves. Quintiles are divisions of family units into fifths—the one fifth of family units with the lowest incomes, the one fifth with the second lowest, and so forth. It is possible then to examine the shares of income and the characteristics of family units in the same relative position in the income scale at different periods. The discussion in Chapter Ten on real income distribution showed that, when the characteristics of families are examined for the same real incomes as, for example, real incomes below \$2,000 at different points of time, the characteristics have changed. It has been suggested that it is more meaningful for many purposes to look at individuals or families in the same relative position through time. On this basis no change may be evident.⁸

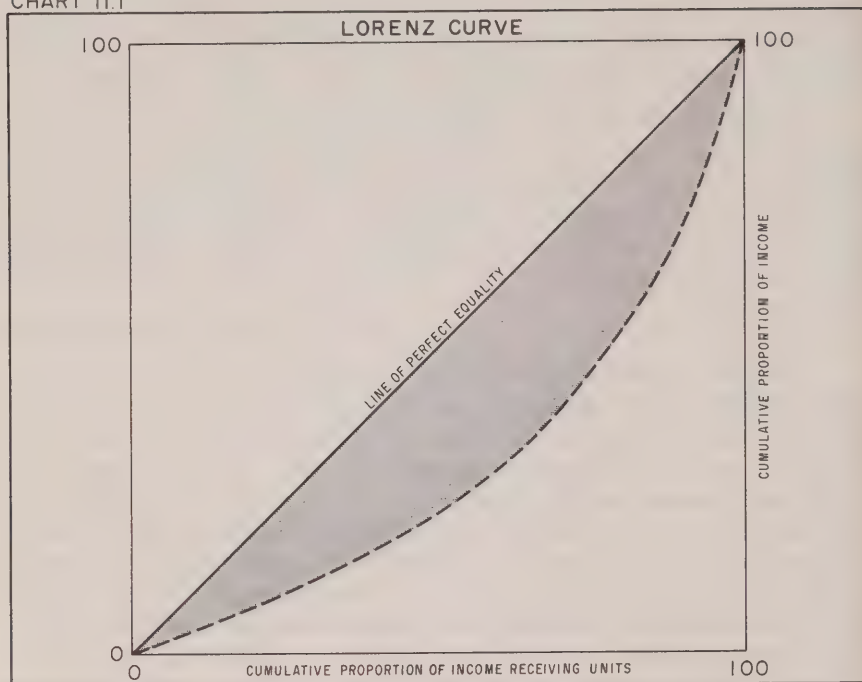
The Lorenz Curve is also a useful statistical device for depicting graphically the degree of relative variability or inequality of income, and it is probably the most familiar and widely used device to examine inequality in income distributions.⁹ The Lorenz Curve shows the cumulated fraction of aggregate income plotted against the

⁸In the United States, for example, the characteristics of the lowest quintiles of families and their shares of incomes have not changed in the postwar years despite the fact that real incomes have risen substantially. See, for example, Herman P. Miller, "Measurements for Alternative Concepts of Poverty", *American Economic Review, Papers and Proceedings*, Vol. LV, May 1965.

⁹For a discussion of the various statistical devices for measuring inequality see M.J. Bowman, "A Graphical Analysis of Personal Income Distribution in the United States" reported in the American Economic Association, *Readings in the Theory of Income Distribution*, 1949 and D. Yntema, "Measures of the Inequality in the Personal Distribution of Wealth or Income", *Journal of the American Statistical Association*, Vol. XXVIII, 1933, pp. 423-433. See also J. Aitchison and J.A.C. Brown, *The Lognormal Distribution*, Department of Applied Economics, Cambridge University, Cambridge University Press, 1957.

cumulated proportion of income receiving units (individuals, families, households, etc.) while the units of measurement are arranged in ascending order by income. A Lorenz Curve is shown in Chart 11.1.

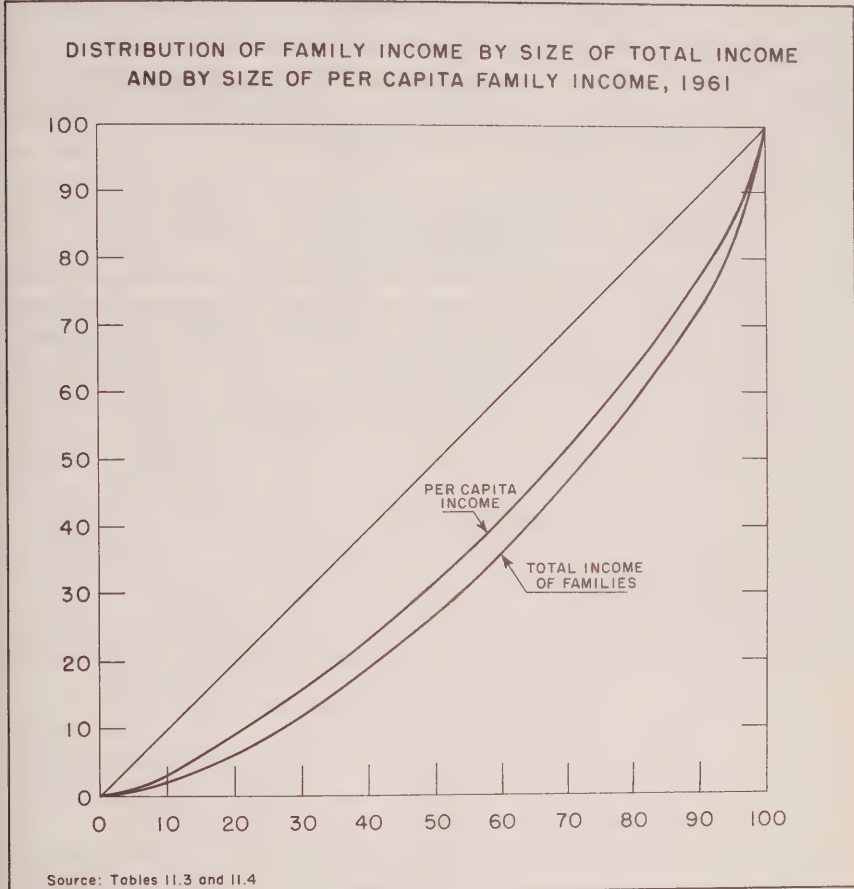
CHART 11.1



If all incomes were equally distributed, the Lorenz Curve would coincide with the diagonal bisecting the square. If only one unit received all the incomes and the rest nothing, the curve would follow the bottom and right hand side of the square. The further the curve is away from the line of perfect equality, the more unequal the income distribution. The degree of inequality is sometimes expressed by the Lorenz coefficient or Gini index. This is defined as the ratio of the area between the curve and the diagonal (the shaded area) to the total triangular area enclosed by the diagonal and the two sides of the rectangle—the lines of complete equality and complete inequality. The Gini ratio then can have a value ranging from 0 to 1.000 and the higher the ratio the greater degree of inequality. Changes in the index denote changes in inequality.¹⁰

¹⁰ Surprisingly few text books contain the formula for the calculation of the Gini index. For a mathematical explanation see Morris G. Kendall, *Advanced Theory of Statistics* (New York: Hafner Publishing Company, 1943) Vol. I, pp. 42-44. For approximate means of calculating the index see W.S. Woytinsky, *Earnings and Social Security in the United States*, Washington, Social Science Research Council, 1943, Appendix and James L. Morgan, "The Anatomy of the Income Distribution," *Review of Economics and Statistics*, XLIV (August 1962), Appendix. The latter method is the one used to calculate the indices in this chapter.

CHART 11.2



FAMILY INCOME SHARES IN 1961

Chart 11.2 illustrates the effect of changing the basis of measuring the family income distribution upon the Lorenz Curve using 1961 Census data. Tables 11.3 and 11.4 show the distribution of families and aggregate family income by size of total family income and the distribution of families and aggregate family income by size of per capita income of the family.

The Lorenz Curves are drawn by charting the cumulative percentage of families as shown in column 2 against the cumulative percentage of income as shown in column 4 of these tables. An examination of the two tables suggests that family income when classified on a per capita basis is more equally distributed than family income measured by size of total income. This is confirmed by Chart 11.2 which shows the Lorenz Curves for the statistics in these two tables. The curve for the distribution of per capita income is closer to the line of perfect equality than

the curve for the distribution of total income. The Gini ratios also confirm this; the ratio for the per capita distribution was .278 while the ratio for the total income distribution was .345 or 24 per cent higher. These distributions, then, are the distributions of the same family units and the same aggregate income but with a different basis for cross-classifying the size of family income. This example illustrates the problems inherent in measuring inequality.

**TABLE 11.3—Percentage Distribution of Families by Size of Family Income
Year Ended May 31, 1961**

Income group	Per cent of families	Cumulative per cent	Per cent of income	Cumulative per cent
Under \$1,000.	3.8	3.8	0.3	0.3
\$ 1,000 — \$ 1,999	7.6	11.4	2.0	2.3
2,000 — 2,999	9.9	21.3	4.3	6.6
3,000 — 3,999	14.4	35.7	8.9	15.5
4,000 — 4,999	16.1	51.8	12.6	28.1
5,000 — 5,999	13.8	65.6	13.2	41.3
6,000 — 6,999	10.1	75.7	11.4	52.7
7,000 — 7,999	7.2	82.9	9.4	62.1
8,000 — 9,999	8.3	91.9	12.7	74.8
10,000 — 14,999	6.3	97.4	13.0	87.8
15,000 and over.	2.8	100.0	12.0	100.0
Totals	100.0		100.0	

SOURCE: Unpublished data from 1961 Census of Canada.

**TABLE 11.4—Percentage Distribution of Families by Size of Per Capita Income,
Year Ended May 31, 1961**

Income group	Per cent of families	Cumulative per cent	Per cent of income	Cumulative per cent
Under \$500	10.0	10.0	2.9	2.9
\$ 500 — \$ 999	24.7	34.7	15.6	18.5
1,000 — 1,499	23.4	58.1	20.5	39.0
1,500 — 1,999	15.4	73.5	16.3	55.3
2,000 — 2,499	9.5	83.0	11.7	67.0
2,500 — 2,999	5.8	88.8	8.0	75.0
3,000 — 3,999	6.2	95.0	9.9	84.9
4,000 — 4,999	2.4	97.4	4.8	89.7
5,000 — 6,999	1.5	98.9	4.1	93.8
7,000 and over	1.0	100.0	6.1	100.0
Totals	100.0		100.0	

SOURCE: Unpublished data from the Surveys of Consumer Finances.

3. CHARACTERISTICS OF INCOMES BY QUINTILES 1951-1961

QUINTILE SHARES OF INCOME

Selected characteristics of the distribution of families and unattached individuals within quintiles are shown in the statistical appendix to this chapter. These data are from special tabulations of income statistics collected from the Surveys of Consumer Finances between 1952 and 1962; the surveys are discussed in more detail in Appendix C. The quintile statistics were tabulated in terms of current rather than constant dollars; the upper limits of the quintiles in current dollars are shown in Table 11.5. The table shows the quintile limits for the income distribution of unattached individuals, of families, and of unattached individuals and families combined. For example, in 1951, the 20 per cent of families in the lowest bracket in the family income distributions had incomes of \$1,820 or less while those in the top 20 per cent had above \$4,640. In 1961, family incomes of \$2,800 or less belonged in the lowest quintile while the top quintile consisted of incomes above \$7,180.

TABLE 11.5—Upper Limits of Quintiles in Current Dollars, Selected Years, 1951-1961

Year and item	Upper limit first quintile	Upper limit second quintile	Upper limit third quintile	Upper limit fourth quintile
	\$	\$	\$	\$
1951—				
Unattached individuals	480	840	1,390	2,140
Families	1,820	2,700	3,480	4,640
Families and unattached individuals	1,260	2,310	3,180	4,320
1954—				
Unattached individuals	500	990	1,670	2,640
Families	2,220	3,240	4,150	5,680
Families and unattached individuals	1,500	2,740	3,740	5,120
1957—				
Unattached individuals	530	980	1,850	3,000
Families	2,380	3,600	4,680	6,350
Families and unattached individuals	1,650	3,040	4,200	5,870
1959—				
Unattached individuals	660	1,060	1,980	3,240
Families	2,650	3,920	5,000	6,690
Families and unattached individuals	1,810	3,310	4,510	6,130
1961—				
Unattached individuals	660	1,100	2,160	3,545
Families	2,800	4,270	5,460	7,180
Families and unattached individuals	1,930	3,586	4,950	6,630

SOURCE: Unpublished data from the Surveys of Consumer Finances.

CHART 11.3

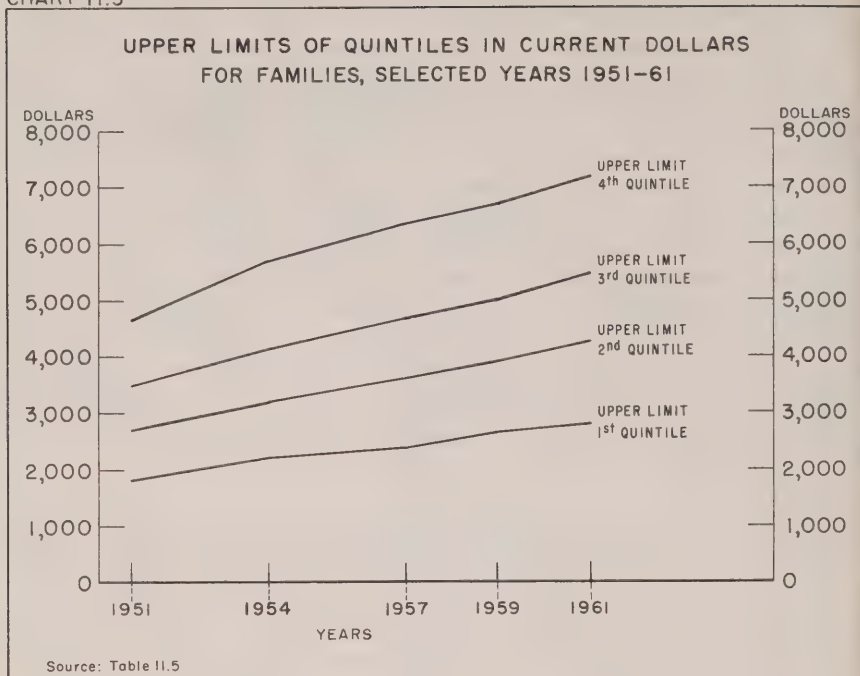


Table 11.5 shows that the changes in the quintile limits between 1951 and 1961 were quite uniform so that the relative relationship of the upper limits showed little change. In the five years for which statistics are shown, the ratio of the upper limit of the fourth quintile to the upper limit of the first quintile of family incomes ranged between 2.53 and 2.66; in four of these five years the range was between 2.53 and 2.56. Since the relativity between quintile limits showed little change over this period, income shares could be expected to remain unchanged as all incomes rose quite proportionately. This is confirmed by the statistics on shares of incomes as shown in Table 11.A.1, which indicate little variation over the decade. Such movements as occur between years may be a reflection of sampling variability rather than actual changes in income shares between years as the statistics are based upon relatively small samples ranging in size from 5,500 family units in 1951 to approximately 10,400 family units in 1961. The 1951 sample was substantially smaller than subsequent samples and was weighted by less refined weighting procedures than the samples collected in later years. Through time, there have also been differences from survey to survey in the representation of very high incomes which, although they may account for only a very small fraction of all families, may influence the estimated income share of the upper quintile. For example, although the 1951 sample was smaller than subsequent samples, the maximum incomes reported on this survey were higher than in the subsequent

survey for 1954. Thus, the apparent decline in the income shares of the upper quintile in 1954 may result from differences in sample characteristics rather than a genuine decline in income shares.

Despite these differences in sample characteristics, the successive estimates from these samples provide remarkably similar results. The range of income shares of total income by quintiles for families and for family units (that is families and unattached individuals combined) were as follows:¹¹

	Families		Family units	
	p.c.	p.c.	p.c.	p.c.
First quintile	6.1	6.8	4.2	4.4
Second quintile	12.9	13.5	11.2	12.0
Third quintile	17.4	18.3	17.8	18.3
Fourth quintile	22.4	24.4	23.3	24.5
Fifth quintile	37.5	41.1	41.1	42.8

The relative distribution of income, then, showed little change over this 11-year period. The impression exists that incomes have become more equally distributed because incomes have risen substantially in recent decades. In fact, these increases appear to have been distributed proportionately throughout the distribution so that the shape of the distribution has remained unchanged. Canadian experience is similar to that of the United States where, in the postwar years, considerable stability has also persisted in composition of the family units constituting the various quintiles and in the income shares by quintiles.¹² Although some changes have occurred in the quintile composition on characteristics, such as the age of family unit heads, little change is evident in other characteristics.

AGE STRUCTURE BY QUINTILES

For all families small changes occurred in the age distribution of family heads. The proportion of families with young heads rose somewhat while the proportion of families with heads in the older age groups declined. In 1951 some 23.5 per cent of family heads were under age 35, and 30 per cent were aged 55 and over; in 1961 these ratios were 27.3 and 25.6, respectively. In the lowest quintiles, then, some decline occurred in the proportion of low-income families with older heads while younger families rose as a proportion of all families.

However, although the age structure among families showed little change, this was not the case with unattached individuals or persons who were not family members. In 1951, slightly over half were males and slightly under half females. Some 17 per cent were under age 25 and 41 per cent were aged 55 and over. The

¹¹For statistics on the total income distribution by quintiles for the various years see Appendix Table 11.A.1.

¹²For evidence see *Trends in the Income of Families and Persons in the United States, 1947 to 1960*, U.S. Bureau of the Census, Technical Paper No. 8, Washington, 1963.

proportion in the younger age groups remained unchanged but the proportion over age 55 rose to 47 per cent; and those aged 65 and over rose from 24 per cent to 32 per cent. The effect of this has been to change the age composition of the lowest quintiles. In 1951, approximately 33 per cent of unattached individuals in the first quintile were over age 65 and 51 per cent of the second quintile were in this age group; in 1961, these proportions were 39 and 62 per cent, respectively. For all family units, that is families and individuals combined, the proportion aged 65 and over showed no change between 1951 and 1961 but the ratio in the lowest quintile rose from 38 to 44 per cent.

These trends are perhaps not unexpected in view of the changes in the age composition of unattached individuals discussed in earlier chapters. Among the population aged 65 and over, an increasing proportion consists of women and, since nearly half of these are single or widowed, more of the older population, through time, consists of persons who are not members of families.¹³ This has been paralleled by an undoubling of older and younger generations as the older population has, more and more, settled upon independent living arrangements. As Chapter Ten pointed out, incomes of the older population have lagged relative to the incomes of the younger age groups. The effect of this is that older family units have formed a rising proportion of the lowest quintile.

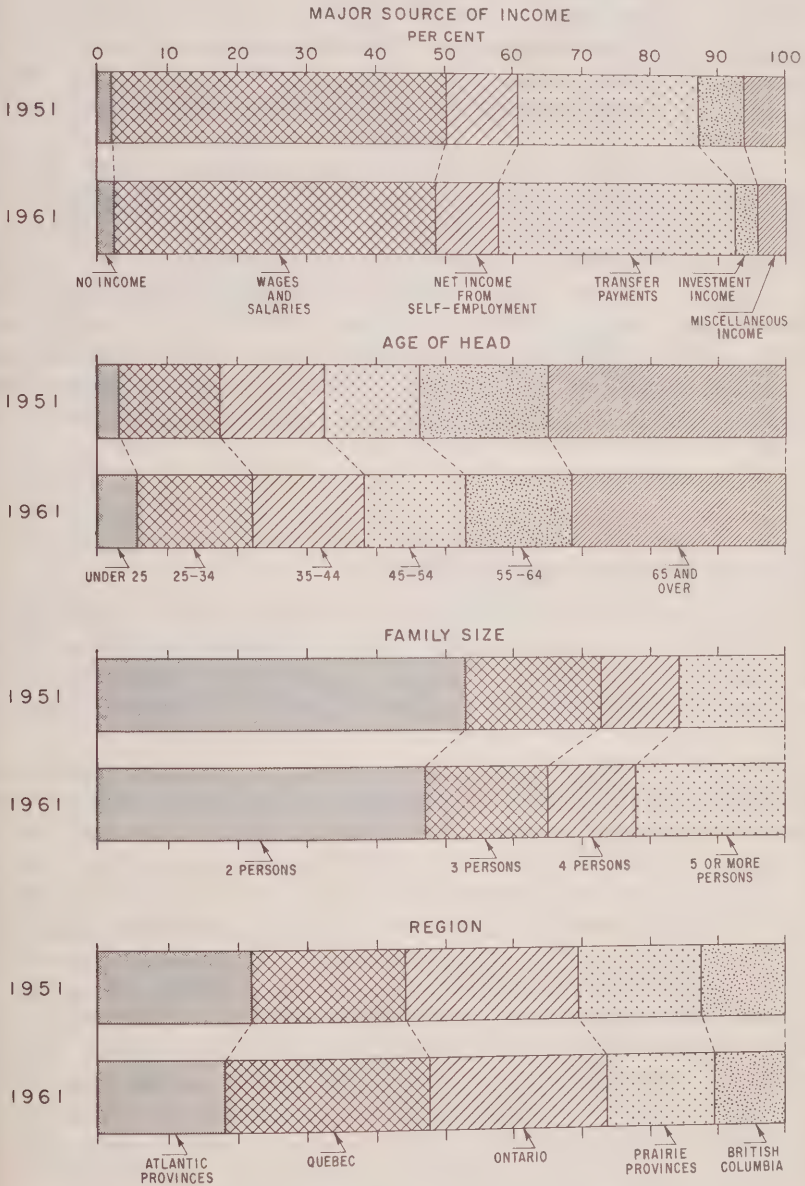
This, in turn, has had an effect upon the composition of incomes of the lowest quintile. The older population has, through time, become more dependent upon income from government pensions and less dependent upon income from employment. The shift in the age composition of the lowest quintiles and the increasing dependence of the aged upon government assistance has increased the proportion of income originating in transfer payments in the lowest quintile. Among families, transfer payments rose from 25 to 35 per cent of income in the lowest quintile while earned income declined from 64 to 55 per cent of total income. For all family and unattached individuals combined, the proportion of total income originating in transfer payments in the lowest quintile increased from 30 to 44 per cent and earned income dropped from 55 to 46 per cent. In 1951, approximately 27 per cent of families in the bottom quintile received the greater part of their income from government transfer payments, a ratio that rose to 35 per cent by 1961. Among all family units the proportion rose from 29 to 44 per cent.

As Table 11.A.1 in the Appendix shows, the distribution of transfer payments between quintiles was the only major income component whose relative distribution changed to any significant degree between 1951 and 1961. For example, in 1951, the lowest quintile of families received four per cent of wages and salaries and the highest 40 per cent; in 1961 the figures were four per cent and 38 per cent.

¹³ For a discussion of population trends of the older population see "Population Trends in Canada and Their Effect on Older People", testimony by A.H. LeNeveu, Dominion Bureau of Statistics, as published in *Proceedings of the Special Committee of the Senate on Aging*, No. 20, Nov. 5, 1964, Queen's Printer, Ottawa, 1964.

CHART 11.4

PERCENTAGE DISTRIBUTION OF FAMILIES IN THE LOWEST
QUINTILE BY SELECTED CHARACTERISTICS
1951 AND 1961



Source: Tables 11A3, 11A4, 11A6, 11A8

The investment income share of the lowest quintile in 1951 was nine per cent and the highest 61 per cent; in 1961 the distribution was still nine per cent to the lowest quintile and 59 per cent to the highest. On the other hand, the share in transfer payments of the two lowest quintiles of families rose from 47 per cent in 1951 to 54 per cent in 1961. The proportion of income originating in transfer payments rose from 1951 to 1961, for all family units (including unattached individuals). Along with this the shares of the lower quintiles also increased during the period. The characteristics of the lowest quintile of family units changed between 1951 and 1961 although the share in total income remained unaltered.

Some changes were also evident in the upper quintiles but these were not as marked. The composition of income showed little change but the age structure of family units had shifted. In 1951, family units with heads aged 65 and over formed the largest group in the first quintile, those with heads aged 25 to 34 were the largest group in the second quintile, the 35 to 44 age groups were most prominent in the third and fourth quintiles, and those aged 45 to 54 were the largest group in the top quintile. By 1961 the 25 to 34 age group had become the largest group in the third quintile and the 35 to 44 group were the largest group in the top quintile. The higher quintiles, then, tended to consist of younger family units in 1961 than in 1951.

OTHER CHARACTERISTICS BY QUINTILES

On other characteristics such as number of persons with income, family size and the labour force status of the family, some small changes were evident between 1951 and 1961. The number of income recipients and the number of income earners per family and per family unit in 1951 and 1961 are shown in Table 11.6.

In total, the proportion of families with only one income recipient or only one income earner declined somewhat between 1951 and 1961. In the lowest quintile the number of income earners in families showed little change but the proportion of families dependent upon one income only declined. This is probably again related to the changes in the age structure of the lowest quintiles. With the introduction of universal old age pensions in 1952 in many older families both husbands and wives would be income recipients. In all quintiles the proportion of families with no family member in the labour force showed no change over the decade but in the second to the fourth quintiles the proportion with two or more family members in the labour force rose and in the fifth quintile the proportion with several working members dropped. Families with no working members were almost entirely concentrated in the lowest quintile. The majority of families in the first three quintiles had only one member in receipt of an income or only one family member working; the majority of the families in the fifth quintile had two or more family members with incomes or in the labour force.

TABLE 11.6—Percentage Distribution of Income Recipients and Income Earners,
Within Quintiles, by Families and Family Units, 1951 and 1961

Year and Item	Quintiles					
	First	Second	Third	Fourth	Fifth	Total
Income recipients						
1951—						
Families—						
None	2.2					0.4
One	67.3	72.8	68.4	46.1	26.5	57.0
Two	26.5	23.6	24.2	39.7	35.9	29.7
Three or more	4.0	3.6	7.4	14.3	37.6	12.8
Totals	100.0	100.0	100.0	100.0	100.0	100.0
Families and unattached individuals—						
None	8.8					1.8
One	78.4	77.3	75.8	57.7	29.8	64.1
Two	12.0	18.9	19.3	33.0	36.7	23.8
Three or more	0.8	3.8	5.0	9.4	33.5	10.3
Totals	100.0	100.0	100.0	100.0	100.0	100.0
1961—						
Families—						
None	2.4					0.5
One	63.8	66.8	59.1	45.6	30.8	53.2
Two	29.6	27.3	33.7	42.2	40.6	34.7
Three or more	4.2	5.8	7.2	12.2	26.4	11.6
Totals	100.0	100.0	100.0	100.0	100.0	100.0
Families and unattached individuals—						
None	7.8					1.6
One	77.5	75.1	68.5	53.7	33.3	61.6
Two	13.6	20.5	25.7	37.7	40.5	27.6
Three or more	1.2	4.4	5.8	8.6	25.2	9.2
Totals	100.0	100.0	100.0	100.0	100.0	100.0
Income earners						
1951—						
Families—						
None	32.9	2.4	0.2	0.6	0.9	7.3
One	55.2	80.3	73.3	52.9	32.1	59.6
Two or more	12.0	17.3	26.5	46.5	67.0	33.1
Totals	100.0	100.0	100.0	100.0	100.0	100.0
Families and unattached individuals—						
None	46.0	6.3	0.9	0.6	1.0	11.2
One	50.5	80.6	81.2	63.5	34.9	62.3
Two or more	3.5	13.1	17.9	35.9	64.1	26.5
Totals	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 11.6—Percentage Distribution of Income Recipients and Income Earners, Within Quintiles, by Families and Family Units, 1951 and 1961 — concluded

Year and Item	Quintiles					
	First	Second	Third	Fourth	Fifth	Total
Income earners — concluded						
1961—						
Families—						
None	31.5	3.2	0.6	0.6	0.9	7.3
One	57.0	72.8	65.8	50.8	37.1	56.7
Two or more	11.5	24.1	33.6	48.6	62.1	36.0
Totals	100.0	100.0	100.0	100.0	100.0	100.0
Families and unattached individuals—						
None	49.2	10.5	1.6	0.8	1.0	12.6
One	46.9	75.3	73.6	58.7	39.3	58.8
Two or more	3.9	14.2	24.9	40.5	59.7	28.6
Totals	100.0	100.0	100.0	100.0	100.0	100.0

SOURCE: Unpublished data from Surveys of Consumer Finances.

Some changes occurred in the size of families and in the number of children under age 16 within families. The proportion of families consisting of two or three persons dropped and the proportion of families consisting of five or more persons increased. The change in family size was concentrated in the first three quintiles so that, on average, families in the lower quintiles were larger in 1961 than in 1951. On the other hand, families at all income levels had more young children in 1961 than in 1951. The proportion of families with no children under age 16 declined from 46 to 37 per cent between 1951 and 1961 and those with three or more rose from 18 to 25 per cent. The high birth rates of the 1950s thus resulted in larger families with higher proportions of young children; per capita family incomes in the lowest quintile declined relative to the per capita income of families in the upper quintile, although the quintile shares in total remained unchanged.

Table 11.A.7 in the Appendix to this chapter presents the distribution of families and family units by the labour force status of the head. In total, the proportion of families whose heads were not in the labour force declined somewhat between 1951 and 1961. The greatest changes occurred in the upper quintiles where the ratio of families whose heads were not in the labour force declined from 10 per cent in 1951 to six per cent in 1961. This change probably resulted because of the increased proportion of younger families in middle and upper quintiles. Heads of such families would be labour force members. The majority of families whose heads were outside the labour force were concentrated in the bottom quintile. In both 1951 and 1961 around half of all families in this quintile had non-working heads. Families whose heads were self-employed were over-represented in the top quintile while the third and fourth quintiles had the greatest relative concentration of families whose heads were in the labour force as paid workers.

REGIONAL CHARACTERISTICS

The geographic distribution of families and family units within quintiles was similar in both 1951 and 1961. In 1951, the Atlantic Provinces had 12 per cent of families but accounted for 22 per cent of families in the lowest quintile and 16 per cent of families in the second quintile; only five per cent of families in the top quintile lived in the Atlantic Provinces. In 1961, the Atlantic Provinces were a smaller proportion of the bottom quintiles but this is probably attributable to the fact that, in total, the Atlantic Provinces contained a smaller proportion of all families as their population growth and family formation lagged relative to other regions. Further, as Chapter Ten noted, incomes rose somewhat more rapidly in the Atlantic Provinces than in the remainder of Canada. In 1951, 44 to 46 per cent of all families in the top two quintiles resided in Ontario; this proportion was still 45 to 46 per cent in 1961. Ontario families thus constituted nearly half of all families in the upper quintiles, but in both periods formed only one quarter of the families in bottom quintiles; in 1951, 36 per cent of families resided in Ontario and in 1961 this ratio was 37 per cent.

Between 1951 and 1961 the proportion of families residing within metropolitan areas (cities with populations of 30,000 or more) rose and, correspondingly, the proportion residing in smaller centres declined—a not unexpected development in view of the increasing urbanization of the population. Among families, there was little change in the lowest and the two highest quintiles as between metropolitan and non-metropolitan areas. The lowest quintile predominantly consisted of families resident in small centres and rural areas and the upper quintiles consisted largely of families resident in larger cities. The greatest changes occurred in the second and third quintiles, where in 1951 the majority of families in the second quintile resided in small urban communities or in rural areas but by 1961 resided in larger metropolitan centres. The proportion of the third quintile resident in larger centres also rose. The unchanging proportion of low-income units in smaller centres in 1961 suggests that growth in incomes in small communities and rural areas lagged relative to income increases experienced in larger cities.

4. REDISTRIBUTION OF INCOMES THROUGH FISCAL POLICY 1951-1961

The discussion in the previous sections is restricted to the distribution of gross money income before personal income taxes. The Second World War led to lowering of personal exemption levels and to the introduction of a progressive income tax structure whose marginal rates are as high as 80 per cent. Direct taxes have been rising as a proportion of total taxable income. At the same time direct cash transfer payments have been a rising proportion of income receipts. Most of the major social security legislation in effect in 1961 was introduced in the 1941-1961 period as, for example, unemployment insurance, family allowances and universal old age pensions. On a disposable income or after-tax basis, families with equivalent current dollar gross incomes would have lower disposable incomes in the

postwar as compared to the prewar period. This raises the question of who benefits from and who pays for such redistribution and what is the effect of net redistribution on income inequality.

The measurement of tax incidence and tax benefits by income level is exceedingly difficult because insufficient data usually make it necessary for researchers to make arbitrary assumptions as to where the tax burden falls and who are recipients of government expenditures.¹⁴ Government revenues are collected through many channels while the greater part of government expenditures takes the form of providing services to the population rather than through the transfer of money. For example, in 1961 the net revenue of federal, provincial and municipal governments in Canada was approximately \$10.3 billion. Of this, only \$2.1 billion consisted of direct income taxes on income earned by persons during the year. More was collected from various sales taxes and excise duties either at manufacturers' level or the retail level. The conclusion has been reached by economists that indirect sales taxes as well as direct sales taxes are borne by the consumers of taxable goods.¹⁵ Other taxes such as corporation taxes may also indirectly be shifted upon consumers. Thus, many taxes are components of prices paid for commodities or services rather than taxes paid directly by families or individuals to various levels of government. Taxes are usually designated as either "progressive", "proportional" or "regressive" taxes. "Progressive" taxes are taxes that increase as a percentage of income as income increases, an example being the income tax that provides for a basic tax exemption for each taxpayer and his dependants and then has rising rates of taxes as the size of taxable income increases. "Proportional" taxes are those that are an even percentage of income regardless of the size of income. A "regressive" tax is one bearing proportionately heavier on low incomes than on high incomes. For example, low-income groups usually spend a higher share of their income than higher income groups which usually save more and a higher proportion of their expenditures is likely to be on commodities subject to sales taxes.¹⁶ Such taxes then may be a higher proportion of low incomes than of high incomes. Another tax that tends to be regressive is the property tax.

Since the 1940s social security legislation has resulted in large out-payments to the population such as old-age pensions, family allowances and unemployment insurance and it is often assumed that these are major factors in rising government expenditures. In fact, in 1961, direct cash payments to the population accounted

¹⁴ Only two comprehensive studies have been attempted for Canada of tax incidence and benefits: *The Burden of Canadian Taxation* by Irving J. Goffman (Canadian Tax Paper No. 29), Canadian Tax Foundation, Toronto, 1962 and *The Incidence of Taxes and Public Expenditures in the Canadian Economy* by W. Irwin Gillespie, *Studies of the Royal Commission on Taxation*, No. 2, Ottawa, 1966.

¹⁵ See, for example, John F. Due, *The General Manufacturers Sales Tax in Canada*, Toronto, 1951, and Irving J. Goffman, *The Burden of Canadian Taxation* (Canadian Tax Paper No. 29), Canadian Tax Foundation, Toronto, 1962.

¹⁶ For example, see Gillespie, *op. cit.*

for only \$2.2 billion of total expenditures of \$11.8 billion by all levels of government. The remainder of government expenditures was largely allocated to the provision of goods and services. Some examples are health care which accounted for \$1.0 billion of government expenditures, the construction of highways, roads and bridges which required \$1.1 billion, education \$1.8 billion and defence services \$1.6 billion. Some of these expenditures may benefit nearly every resident in the country, as for example, expenditures on the provision of transportation facilities and on defence. Other expenditures may directly benefit only those segments of the population using the facilities provided; for example, the major beneficiaries of education expenditures would be families whose children attend educational institutions while expenditures on health care may have been of benefit only to families needing hospital or other health care facilities during the year. The allocation of the amount of such benefits by income levels presents serious statistical problems, and in many instances can be attempted only on the basis of the most arbitrary assumptions.

The few studies that have been carried out for Canada have concluded that, on the tax side, some taxes are progressive, some are proportionate to income, some are regressive. The study carried out for the Royal Commission on Taxation concluded that, for federal taxes in total, the federal tax structure was regressive at the lowest end, that is for family units with money incomes below \$2,000, and progressive above this level; provincial and local taxes were also regressive below \$3,000 and, on balance, proportionate above this level. For all taxes combined, the tax structure was very regressive for the lowest income groups, proportionate for the middle income ranges and progressive at the highest end. This, however, is balanced by the fact that when benefits from government expenditures, in total, both through direct transfer payments and goods and services, are allocated by income level, the lower the income the greater the benefits relative to income. For family units with incomes below \$4,500, a positive redistribution occurs when the value of benefits received is compared with the amount of taxes paid; within the income range \$4,500 to \$7,000 the redistribution changes from positive to negative and above \$7,000 is negative.¹⁷

TAX INCIDENCE AND TRANSFER PAYMENT RECEIPTS BY INCOME GROUPS 1951-1961

The Royal Commission study covered the year 1961 while the earlier study sponsored by the Canadian Tax Foundation was for 1957. There are no similar estimates available for Canada for any other time period on long-run trends and, thus, no data on the effect of government policies on the redistribution of incomes over the past several decades. For the purposes of this monograph it has been possible to develop statistical series for selected years between 1951 and 1961 on

¹⁷ See Gillespie, *ibid.*, Chap. 4, "Net Fiscal Incidence".

one aspect of redistribution in Canada—the incidence of personal income taxes and the incidence of benefits received through social security payments in a cash or money form. This allows for an estimate of the net effect on money income of taxes and transfers.

A number of qualifications must be made about these estimates. First, receipts of unemployment insurance are included under transfer payments received, although such payments are financed out of employer and employee contributions to the unemployment insurance fund and not out of general tax revenues. Employers can obtain exemption from payment for employees in certain occupations, and certain industries such as agriculture are also not required to contribute. In general, employee contributions would probably originate largely in the two or three lowest quintiles of the income distribution. Such contributions should have been added to the income tax payments of these groups to be balanced against receipts of transfer payments before net incidence is derived. For technical reasons this could not be done.

For the years under study employee contributions to the unemployment insurance fund were as follows: 1951, \$76 million; 1954, \$79 million; 1957, \$95 million; 1959, \$102 million; and 1961, \$138 million.

Another problem with the allocation of taxes is income taxes collected by provinces. In 1951, only the federal government levied direct income taxes; since then the federal government has vacated some of the direct income tax field and allowed provinces to set their own rates. In the case of all provinces, except Quebec, the federal government acts as the collector of provincial as well as federal taxes and remits these collections to the provinces. The province of Quebec collects taxes directly from provincial residents. The estimates of tax payments in this chapter are based upon data published by the Department of National Revenue on taxes assessed on behalf of the federal government and the provinces for which the federal government acts as an agent. It therefore excludes Quebec income taxes and thus introduces some incomparability between 1951 data and subsequent years and understates the tax liabilities by income group for the selected years between 1954 and 1961. However, the conclusions that can be drawn from the data may not be seriously affected by the lack of data for Quebec income taxes.

For the years under study, Quebec income taxes were of the following magnitude: 1954, \$25 million; 1957, \$41 million; 1959, \$55 million; and 1961, \$85 million.

From 1954 to 1959 inclusive, basic exemptions granted to Quebec residents were greater than exemptions allowed for federal tax purposes. Single taxpayers were exempt from taxes on the first \$1,500 of taxable income and married couples on \$3,000. It is probable, then, that for these years little of the taxes collected came from family units with incomes below \$3,000 and even for units between \$3,000 and \$5,000, because of the exemptions granted for dependants other than the wife, tax payments were probably fairly modest. The bulk of payments were probably

made by family units with incomes above \$5,000. In 1961, exemptions were brought in line with federal exemptions so that more of the Quebec taxes in that year may have originated with lower income groups.

Table 11.A.10 in the statistical Appendix to this chapter presents, data on the distribution of family units and gross money income before taxes, by size of gross income, as well as the distribution of taxes, disposable income and transfer payments receipts by income class for selected years. The last column in this table shows the amount of net redistribution by income class.

EFFECTS OF REDISTRIBUTION ON INCOME INEQUALITY

Because little change is evident between 1951 and 1961 in income inequality, comments are restricted to comparing the 1951 and 1961 distributions. The effects of government policy can be examined from several points of view—the degree of inequality present when the income distribution is examined net of transfer payments as compared to the income distribution inclusive of transfer payments, as well as the income distribution on a disposable income basis, that is, inclusive of transfer payments but after subtraction of taxes. The Gini ratios on these different bases are shown in Table 11.7.

TABLE 11.7—Gini Ratios, Selected Years 1951-1961

Year	Gross income	Gross income less transfer payments	Gross income less taxes
1951 . . . . .	.390	.584	.369
1954 . . . . .	.388	.585	.377
1957 . . . . .	.397	.572	.378
1959 . . . . .	.386	.578	.367
1961 . . . . .	.385	.580	.366

SOURCE: Calculated from Tables 11.A.10 to 11.A.14.

These ratios confirm that the redistribution of income through the imposition of taxes and their redistribution through transfer payments has a substantial levelling effect on the income distribution. Gini ratios for the distribution of income from private sources, that is, exclusive of government transfer payments, shows much more inequality than the distribution of disposable money income. Since taxes and transfer payments were of negligible importance in the prewar periods, these comparisons may be indications of long-run trends in inequality. All ratios show little variation for the selected years shown. This suggests that the main impact of government policy on the income distribution probably occurred in the decade preceding 1951.

TABLE 11.8—Percentage Distribution of Family Units, Gross Income, Taxes and Disposable Income, by Income Groups, 1951 and 1961

Year and income group	Family units	Gross income	Taxes	Dis-posable income	Ratio taxes to income
	p.c.	p.c.	p.c.	p.c.	p.c.
1951—					
Under \$500	7.4	0.6	—	0.6	—
\$ 500 — \$ 999	8.4	2.0	—	2.1	—
1,000 — 1,499	8.6	3.4	0.7	3.6	1.3
1,500 — 1,999	9.3	5.1	2.1	5.4	2.8
2,000 — 2,499	10.9	8.0	3.8	8.3	3.2
2,500 — 2,999	12.9	11.3	5.0	11.8	3.0
3,000 — 3,999	18.7	20.3	12.7	20.9	4.3
4,000 — 4,999	9.6	13.3	10.8	13.5	5.6
5,000 — 9,999	12.4	25.7	28.5	25.5	7.5
10,000 and over	1.7	10.3	36.4	8.4	24.1
Totals	100.0	100.0	100.0	100.0	6.8
1961—					
Under \$1,000	9.9	1.1	—	1.2	—
\$ 1,000 — \$1,999	10.4	3.2	0.5	3.4	1.3
2,000 — 2,999	12.0	6.2	2.5	6.5	3.2
3,000 — 3,499	6.7	4.6	2.7	4.7	4.7
3,500 — 3,999	7.1	5.6	3.1	5.8	4.5
4,000 — 4,499	7.4	6.5	5.0	6.6	6.2
4,500 — 4,999	7.3	7.2	5.2	7.4	5.7
5,000 — 5,999	12.5	14.0	11.3	14.2	6.5
6,000 — 6,999	9.0	11.9	10.6	12.0	7.1
7,000 — 7,999	5.8	8.9	8.2	9.0	7.4
8,000 — 9,999	6.5	12.1	12.7	12.1	8.5
10,000 — 14,999	3.9	10.0	13.4	9.7	10.8
15,000 and over	1.5	8.7	24.8	7.3	23.0
Totals	100.0	100.0	100.0	100.0	8.1

SOURCE: Special estimates prepared from Surveys of Consumer Finances and Taxation Statistics.

Table 11.8 presents in percentage terms the distribution of incomes and taxes by income level and the ratios of taxes to income. Over-all taxes as a proportion of income rose from 6.8 to 8.1 per cent of gross income; if Quebec taxes had been included in the 1961 estimates the ratio would have been somewhat higher, approximately 8.4 per cent. The ratio of taxes to income in 1961 was higher for most income levels in 1961 than in 1951. Since, for example, a family income of \$5,000 to \$6,000 in current dollars represents a lower real income in 1961 than in 1951, families in 1961 had an even lower disposable income in real terms. Higher taxes in 1961 seem to have been collected from the middle-income groups to a greater extent than in 1951 and families with the highest incomes seem to have paid a smaller share of taxes in 1961 than in 1951. For example, in 1951 some two per

cent of family units had incomes of \$10,000 or more, received 10 per cent of gross pre-tax income but paid 36 per cent of taxes. In 1961 the equivalent group appeared to be family units with incomes above \$15,000 who were 1.5 per cent of family units, received nine per cent of gross income but paid only 25 per cent of taxes. The exclusion of Quebec from the estimates would not affect the results significantly; it is unlikely to raise the top income group's share of taxes by more than one or two percentage points. The growth in direct tax revenue, then, is partially the result of somewhat higher effective tax rates over the middle-income ranges accompanied by a substantial growth in incomes and population.

The over-all increase in the ratio of taxes to income was accompanied by an increase in government expenditures on transfer payments paid in cash directly to the population. Such payments have grown from 5.1 to 6.8 per cent of total income so that higher tax rates have been partially compensated by higher receipts of transfer payments. In lower income groups, as might be expected, receipts of transfer payments exceeded income taxes paid so that, on balance, these groups were net beneficiaries. The reverse was true for higher income groups. The net amounts redistributed are shown in Tables 11.A.10 to 11.A.14 in the last column of each table. In 1951, cash transfer payments receipts exceeded direct income taxes paid for family units with incomes below \$4,000. Below this income level, receipts of transfer payments exceeded taxes paid by some \$265 million; above this taxes paid were in excess of transfer income receipts by \$455 million. In 1961 the income level that separated positive from negative redistribution appeared to be almost unchanged. From the taxes distributed, the income groups below \$4,500 were net beneficiaries; however, if Quebec taxes had been allocated as well, the income group \$4,000 to \$4,500 would probably have shown greater tax payments than income benefits. Over the decade, the point of redistribution remained unchanged in terms of current dollars. In 1951 family units with incomes below \$4,000 received 58 per cent of transfer payments but paid 24 per cent of personal income taxes; in 1961 they contributed only nine per cent of taxes but still received 58 per cent of transfer payments. In 1951, three quarters of all family units had incomes below \$4,000. This means that only the top quartile in the income distribution paid more in taxes than they received in money payments of social security benefits. In 1961 the under-\$4,000 income group were only 46 per cent of family units so that less than one half of family units were net beneficiaries.

5. INEQUALITY BY MAJOR SOURCE OF INCOME

Although there appears to have been little change in income equality for the income distribution in total, there is some evidence that inequality changes have occurred among some groups of family units and that the over-all stability of the indices may result from compensating movements in the inequality prevailing within certain groups and structural shifts between these groups. Tax incidence was originally estimated separately for families by major source of family income — wages and salaries, net income from unincorporated business or professional

practice, and other money income (investments, transfer payments or retirement pensions). The data discussed in the preceding sections of this chapter were the statistics for these three types of family units combined. When these groups are considered separately some changes appear to have occurred among several of these sub-groups. Table 11.9 summarizes the Gini ratios for the before-tax and after-tax incomes of family units by major source of income for selected years.

TABLE 11.9—Gini Ratios by Major Source of Income of Family Unit for Gross Income and Disposable Income, Selected Years 1951-1961

Year	Major source of income		
	Wages and salaries	Net income from self-employment	Other money income
Gross income—			
1951 .....	.310	.493	.568
1954 .....	.322	.466	.547
1957 .....	.324	.463	.537
1959 .....	.319	.473	.502
1961 .....	.306	.439	.510
Disposable income—			
1951 .....	.296	.449	.519
1954 .....	.306	.429	.511
1957 .....	.314	.426	.499
1959 .....	.308	.432	.463
1961 .....	.296	.393	.473

SOURCE: Calculated from unpublished estimates.

The estimates suggest that there has been no change in the degree of inequality in the income distribution of wage-earning families while the families whose income originated in self-employment and families whose income was derived largely from investments, pension and transfer payments had more equally distributed incomes in 1961 than in 1951. The self-employed were a significant element in upper income groups while families whose income was largely from sources other than earnings tended to be concentrated in lower income groups. Wage-earning family units remained a relatively constant proportion of all family units; somewhat over three quarters in both 1951 and 1961. Families of the self-employed were 10 per cent of family units in 1951 and only seven per cent in 1961. The proportion of family units dependent mainly upon non-earned sources of income rose from 12 per cent in 1951 to 15 per cent in 1961. The net effect of movements toward greater equality among some family types along with the changing importance of income sources was to leave the inequality of the over-all income distribution unchanged.

EFFECT OF TRANSFER PAYMENT RECEIPTS AND INVESTMENT INCOME ON INEQUALITY

The trend toward greater equality of incomes among families whose income was from sources other than earnings probably resulted from the increased importance of transfer payments which, to a considerable extent, accrued to lower income groups and the diminished importance of investment income. However, an examination of the over-all income distribution, that is, for all families combined, suggests that between 1951 and 1961 transfer payments, in total, did not have a more equalizing effect upon the income distribution in the latter year than in the earlier year.

A qualification must be made about the comparisons for the two years. The 1951 estimates are based upon survey data while the 1961 estimates are based upon census statistics. The census statistics show a somewhat higher proportion of income as being received by the top quintile than do survey results for the same period. Differences between the estimates for both years may be simply a reflection of the fact that the census income distribution was somewhat more unequal than the survey estimates.

Census estimates of investment income receipts appear to be better than survey estimates. Despite some difference in coverage, Gini ratios calculated from survey data for 1951 and census data for 1961 suggest that investment income was neutral in its effect on income inequality; incomes inclusive of investment income were as unequally distributed as incomes exclusive of investment income.

The Gini concentration ratios for total income for the income distribution exclusive of transfer payments and the income distribution exclusive of investment income for the years 1951 and 1961 are shown in Table 11.10.

TABLE 11.10—Gini Concentration Ratios for Distribution of Total Income, Income Exclusive of Transfer Payments and Income Exclusive of Investment Income, 1951 and 1961

Type of unit and year	Total income	Income exclusive of transfer payments	Income exclusive of investment income
All family units—			
1951 . . . . .	.384	.413	.392
1961 . . . . .	.395	.429	.395
Unattached individuals—			
1951 . . . . .	.433	.483	.459
1961 . . . . .	.454	.532	.463
Families—			
1951 . . . . .	.337	.366	.339
1961 . . . . .	.346	.380	.349

SOURCE: 1951 ratios calculated from unpublished data from Surveys of Consumer Finances.

Transfer payments affected the income distribution of unattached individuals to a greater extent than families; incomes other than transfer payments were less equally distributed among unattached individuals than among families. In 1961, for example, 12 per cent of unattached individuals had only transfer payments as a source of income; the equivalent percentage among families was only three per cent. This was undoubtedly due to the growing proportion of unattached individuals in older age groups who increasingly have come to rely upon transfer payments, especially old age pensions, for their income. For example, in 1961 one third of unattached individuals had incomes below \$1,000 and received seven per cent of total income of unattached individuals, including transfer payments. If individuals are classified by size of income other than transfer payments, then nearly 40 per cent had incomes below \$1,000 but received only four per cent of income exclusive of transfer payments. The inclusion of transfer payments, as might be expected, raised the income shares of lower income groups.

Investment income, however, had a somewhat different effect. As the discussion in the Appendix on the quality of the income data indicates, investment income was under-reported on the surveys and the censuses. If the under-reporting was not proportionate, then the above conclusions about the neutrality of investment income might not be valid. Investment income as reported on the surveys and censuses tended to constitute an above average proportion of total income among the lowest and highest income quintiles and such receipts were very much age-related. Age is one of the most significant factors in explaining higher asset ownership.¹⁸ The concentration ratios shown in Table 11.10 suggest that the distribution of income, exclusive of investment income, was less equal than the distribution of income inclusive of investment income among unattached individuals; for families little change occurred in the ratios. For many persons living alone investment income represents modest returns from substantial wealth concentrations. It is possible, as well, that investment income in postwar decades might be more equally distributed than in the prewar periods. The wartime and postwar prosperity might have allowed for an accumulation of assets not possible during the prewar years.

In summary, then, although over-all income distributions before and after taxes showed little or no change in income inequality between 1951 and 1961, a disaggregation of the data suggests that, in fact, some changes occurred for sub-groups. Much more disaggregation is necessary along with data on the shares of income accruing to different family types for an adequate analysis of income inequality. More census data and better survey data will be required for research purposes before more probing can be attempted.

¹⁸ See, for example, page 18, of *Incomes, Assets and Indebtedness of Non-Farm Families in Canada, 1963* (Cat. No. 13-525), DBS Ottawa, July 1966, and Dorothy S. Projector, and Gertrude S. Weiss, *Survey of Financial Characteristics of Consumers*, Board of Governors of the Federal Reserve System, Washington, August 1966.

APPENDIX 11.A

TABLE 11.A.1—Percentage Distribution of Income Components and Total Income by Quintiles of Families and of Families and Unattached Individuals, Selected Years 1951-1961

Income components	Quintiles					
	First	Second	Third	Fourth	Fifth	Total
	Families					
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
951—						
Wages and salaries	4.0	12.6	19.0	24.7	39.6	100.0
Net income from self-employment . . .	6.6	11.9	11.1	13.5	56.9	100.0
Transfer payments	29.3	17.7	17.4	18.9	16.8	100.0
Investment income	9.4	15.7	5.4	8.3	61.3	100.0
Miscellaneous income	29.5	12.8	10.3	20.6	26.9	100.0
Totals, income	6.1	12.9	17.4	22.4	41.1	100.0
954—						
Wages and salaries	4.5	13.2	19.8	26.9	35.5	100.0
Net income from self-employment . . .	6.9	12.6	10.7	14.0	55.8	100.0
Transfer payments	30.6	19.3	17.1	17.7	15.2	100.0
Investment income	8.6	9.2	9.5	18.0	54.8	100.0
Miscellaneous income	18.6	24.0	12.6	15.1	29.6	100.0
Totals, income	6.5	13.5	18.1	24.4	37.5	100.0
957—						
Wages and salaries	4.0	13.0	19.7	25.7	37.6	100.0
Net income from self-employment . . .	6.1	10.8	11.2	13.9	58.0	100.0
Transfer payments	31.9	18.9	16.7	16.5	16.0	100.0
Investment income	11.1	8.1	8.1	14.0	58.7	100.0
Miscellaneous income	21.2	22.1	7.7	18.5	30.4	100.0
Totals, income	6.3	13.1	18.1	23.4	39.1	100.0
959—						
Wages and salaries	4.3	13.2	19.5	25.9	37.1	100.0
Net income from self-employment . . .	5.7	12.0	10.0	12.7	59.6	100.0
Transfer payments	33.5	20.0	16.1	15.0	15.3	100.0
Investment income	9.1	7.2	9.1	10.9	63.6	100.0
Miscellaneous income	23.6	18.8	14.6	11.9	31.0	100.0
Totals, income	6.8	13.4	17.8	23.0	39.0	100.0
961—						
Wages and salaries	3.9	13.0	19.7	25.9	37.6	100.0
Net income from self-employment . . .	6.5	13.9	11.8	14.1	53.7	100.0
Transfer payments	34.8	19.6	15.3	15.0	15.3	100.0
Investment income	8.9	7.8	11.0	13.1	59.2	100.0
Miscellaneous income	21.6	20.0	12.2	12.8	33.4	100.0
Totals, income	6.6	13.5	18.3	23.4	38.4	100.0

TABLE 11.A.1—Percentage Distribution of Income Components and Total Income by Quintiles of Families and of Families and Unattached Individuals, Selected Years 1951 - 1961 — concluded

	Families and unattached individuals					
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
1951—						
Wages and salaries	2.6	10.5	19.6	25.1	42.0	100.0
Net income from self-employment . . .	3.3	11.3	11.5	17.2	56.7	100.0
Transfer payments	24.6	18.3	17.9	20.6	18.5	100.0
Investment income	9.5	10.8	12.5	9.6	57.6	100.0
Miscellaneous income	19.8	27.9	8.5	19.1	24.7	100.0
Totals, income	4.4	11.2	18.3	23.3	42.8	100.0
1954—						
Wages and salaries	2.7	11.2	19.0	26.5	40.6	100.0
Net income from self-employment . . .	2.9	12.3	11.6	14.2	58.9	100.0
Transfer payments	25.8	20.3	18.0	17.7	18.2	100.0
Investment income	8.4	11.6	12.0	15.3	52.7	100.0
Miscellaneous income	13.6	22.3	16.2	14.0	33.9	100.0
Totals, income	4.4	12.0	17.8	24.0	41.8	100.0
1957—						
Wages and salaries	2.3	10.8	19.4	27.2	40.4	100.0
Net income from self-employment . . .	2.0	11.8	12.0	13.2	61.0	100.0
Transfer payments	28.1	22.0	15.7	17.2	17.0	100.0
Investment income	7.4	13.4	10.3	13.9	55.0	100.0
Miscellaneous income	15.5	27.5	12.5	14.6	29.8	100.0
Totals, income	4.2	11.9	18.0	24.5	41.4	100.0
1959—						
Wages and salaries	2.3	10.7	19.5	26.9	40.5	100.0
Net income from self-employment . . .	2.2	11.4	11.5	13.1	61.8	100.0
Transfer payments	27.6	23.7	15.9	16.7	16.1	100.0
Investment income	7.3	10.8	8.9	12.4	60.5	100.0
Miscellaneous income	13.0	26.2	15.0	18.2	27.6	100.0
Totals, income	4.4	11.9	18.0	24.1	41.6	100.0
1961—						
Wages and salaries	2.1	10.4	19.5	27.0	41.0	100.0
Net income from self-employment . . .	2.3	12.2	12.9	16.2	56.4	100.0
Transfer payments	27.6	24.5	16.3	15.5	16.1	100.0
Investment income	6.8	11.9	11.5	13.5	56.2	100.0
Miscellaneous income	14.3	27.4	13.0	14.9	30.5	100.0
Totals, income	4.2	11.9	18.3	24.5	41.1	100.0

SOURCE: Unpublished data from the Surveys of Consumer Finances, except where otherwise indicated.

TABLE 11.A.2—Percentage Composition of Income Within Quintiles of Families and Families and Unattached Individuals, Selected Years 1951-1961

Composition of income	Quintiles					
	First	Second	Third	Fourth	Fifth	Total
	Families					
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
1951—						
Wages and salaries	52.1	76.9	86.1	86.7	76.1	78.9
Net income from self-employment. . .	11.5	9.9	6.8	6.5	14.9	10.7
Transfer payments	24.9	7.1	5.2	4.4	2.1	5.2
Investment income.	6.3	5.0	1.3	1.5	6.2	4.1
Miscellaneous income	5.2	1.1	0.6	1.0	0.7	1.1
Totals, income	100.0	100.0	100.0	100.0	100.0	100.0
1954—						
Wages and salaries	53.2	76.2	84.9	85.7	73.6	77.6
Net income from self-employment. . .	13.0	11.4	7.3	7.0	18.3	12.3
Transfer payments	26.1	8.0	5.3	4.1	2.3	5.6
Investment income.	4.4	2.3	1.8	2.5	4.9	3.4
Miscellaneous income	3.2	2.0	0.8	0.7	0.9	1.1
Totals, income	100.0	100.0	100.0	100.0	100.0	100.0
1957—						
Wages and salaries	49.9	78.4	85.8	86.6	75.8	78.9
Net income from self-employment. . .	10.8	9.3	6.9	6.6	16.5	11.1
Transfer payments	30.7	8.8	5.6	4.3	2.5	6.1
Investment income.	5.1	1.8	1.3	1.7	4.4	2.9
Miscellaneous income	3.4	1.7	0.4	0.8	0.8	1.0
Totals, income	100.0	100.0	100.0	100.0	100.0	100.0
1959—						
Wages and salaries	48.8	76.4	85.0	87.3	73.9	77.6
Net income from self-employment. . .	9.4	10.0	6.3	6.2	17.1	11.2
Transfer payments	33.1	10.0	6.1	4.4	2.6	6.7
Investment income.	4.4	1.8	1.7	1.5	5.3	3.3
Miscellaneous income	4.4	1.8	1.0	0.6	1.0	1.3
Totals, income	100.0	100.0	100.0	100.0	100.0	100.0
1961—						
Wages and salaries	46.5	76.3	85.2	87.2	77.2	78.9
Net income from self-employment. . .	9.7	10.2	6.4	5.9	13.8	9.8
Transfer payments	34.9	9.6	5.5	4.2	2.6	6.6
Investment income.	4.6	2.0	2.0	1.9	5.2	3.4
Miscellaneous income	4.4	2.0	0.9	0.9	1.2	1.3
Totals, income	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 11.A.2—Percentage Composition of Income Within Quintiles of Families and Families and Unattached Individuals, Selected Years 1951-1961 — concluded

Income components	Quintiles					
	First	Second	Third	Fourth	Fifth	Total
	Families and unattached individuals					
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
1951—						
Wages and salaries	47.8	74.0	84.9	85.0	77.6	79.0
Net income from self-employment. . .	7.9	10.4	6.5	7.6	13.7	10.3
Transfer payments	29.6	8.6	5.1	4.6	2.3	5.2
Investment income.	9.2	4.1	2.9	1.7	5.7	4.2
Miscellaneous income	5.5	3.0	0.6	1.0	0.7	1.2
Totals, income	100.0	100.0	100.0	100.0	100.0	100.0
1954—						
Wages and salaries	47.2	72.4	82.8	85.8	75.3	77.6
Net income from self-employment. . .	7.8	11.9	7.6	6.9	16.4	11.6
Transfer payments	34.0	9.7	5.9	4.3	2.5	5.8
Investment income.	7.1	3.6	2.5	2.4	4.7	3.7
Miscellaneous income	3.9	2.3	1.1	0.7	1.0	1.3
Totals, income	100.0	100.0	100.0	100.0	100.0	100.0
1957—						
Wages and salaries	42.3	71.3	84.7	87.3	76.7	78.6
Net income from self-employment. . .	4.9	10.4	7.0	5.6	15.5	10.5
Transfer payments	42.8	11.9	5.6	4.5	2.6	6.4
Investment income.	5.7	3.7	1.9	1.9	4.4	3.3
Miscellaneous income	4.3	2.7	0.8	0.7	0.8	1.2
Totals, income	100.0	100.0	100.0	100.0	100.0	100.0
1959—						
Wages and salaries	40.5	69.6	84.1	86.5	75.5	77.4
Net income from self-employment. . .	5.3	10.1	6.8	5.8	15.7	10.6
Transfer payments	44.3	14.1	6.3	4.9	2.7	7.1
Investment income.	5.9	3.2	1.7	1.8	5.1	3.5
Miscellaneous income	4.0	3.0	1.1	1.0	0.9	1.4
Totals, income	100.0	100.0	100.0	100.0	100.0	100.0
1961—						
Wages and salaries	38.3	68.8	83.8	86.5	78.3	78.5
Net income from self-employment. . .	5.1	9.5	6.5	6.1	12.7	9.3
Transfer payments	45.7	14.5	6.3	4.4	2.8	7.0
Investment income.	6.0	3.7	2.3	2.1	5.1	3.7
Miscellaneous income	5.0	3.4	1.0	0.9	1.1	1.5
Totals, income	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 11.A.3—Percentage Distribution of Families and of Families and Unattached Individuals by Major Source Within Quintiles, Selected Years 1951-1961

Major source of income	Quintiles					
	First	Second	Third	Fourth	Fifth	Total
	Families					
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
1951—						
No income	2.0					0.4
Wages and salaries	48.2	85.5	91.8	92.4	85.9	80.8
Net income from self-employment . . .	10.5	10.7	7.2	6.9	11.6	9.4
Transfer payments	26.6	1.1	0.3			5.6
Investment income	7.0	1.7	0.5	0.5	2.1	2.3
Miscellaneous income	5.7	1.0	0.2	0.3	0.4	1.5
Totals, income	100.0	100.0	100.0	100.0	100.0	100.0
1954—						
No income	1.1					0.2
Wages and salaries	52.3	83.3	90.7	90.7	82.7	80.1
Net income from self-employment . . .	13.6	12.8	7.8	7.3	15.5	11.3
Transfer payments	28.3	2.6	0.6	0.7	0.4	6.6
Investment income	3.9	1.3	0.7	1.1	1.3	1.7
Miscellaneous income	0.8			0.1	0.1	0.2
Totals, income	100.0	100.0	100.0	100.0	100.0	100.0
1957—						
No income	2.5					0.5
Wages and salaries	49.2	85.5	91.6	92.0	84.6	80.7
Net income from self-employment . . .	10.9	9.7	7.5	6.7	13.1	9.6
Transfer payments	30.9	2.3	0.2	0.4		6.7
Investment income	3.2	0.9	0.5	0.4	1.9	1.4
Miscellaneous income	3.1	1.6	0.1	0.6	0.4	1.2
Totals, income	100.0	100.0	100.0	100.0	100.0	100.0
1959—						
No income	1.5					0.3
Wages and salaries	50.1	82.9	91.3	92.7	83.8	80.2
Net income from self-employment . . .	9.6	10.7	6.7	6.3	14.2	9.5
Transfer payments	35.4	4.9	1.2	0.5	0.2	8.4
Investment income	3.6	1.1	0.8	0.5	1.7	1.4
Miscellaneous income	0.8	0.4				0.3
Totals, income	100.0	100.0	100.0	100.0	100.0	100.0
1961—						
No income	2.4					0.5
Wages and salaries	46.3	83.5	91.3	92.1	86.8	80.0
Net income from self-employment . . .	9.1	11.6	7.0	6.2	10.9	9.0
Transfer payments	34.6	1.8	0.3	0.1		7.3
Investment income	3.4	1.0	1.0	1.2	1.7	1.7
Miscellaneous income	4.2	2.0	0.5	0.5	0.6	1.6
Totals, income	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 11.A.3—Percentage Distribution of Families and of Families and Unattached Individuals by Major Source Within Quintiles, Selected Years 1951-1961 — concluded

Income components	Quintiles					
	First	Second	Third	Fourth	Fifth	Total
Families and unattached individuals						
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
1951—						
No income	8.6					1.8
Wages and salaries	41.7	79.3	91.2	90.6	87.2	77.8
Net income from self-employment . . .	6.4	10.7	7.1	8.5	10.4	8.6
Transfer payments	28.9	3.6	0.6	0.1		6.8
Investment income	9.4	3.0	0.7	0.6	2.0	3.2
Miscellaneous income	5.0	3.4	0.3	0.2	0.3	1.9
Totals, income	100.0	100.0	100.0	100.0	100.0	100.0
1954—						
No income	6.0					1.2
Wages and salaries	44.2	76.8	88.8	91.1	84.3	77.0
Net income from self-employment . . .	8.0	13.1	8.5	6.8	13.8	10.0
Transfer payments	35.3	6.8	1.5	0.8	0.6	9.0
Investment income	5.6	3.0	1.2	1.2	1.3	2.5
Miscellaneous income	0.9	0.2	0.1	0.1	0.1	0.3
Totals, income	100.0	100.0	100.0	100.0	100.0	100.0
1957—						
No income	7.9					1.6
Wages and salaries	38.6	75.8	90.8	92.8	85.0	76.6
Net income from self-employment . . .	5.1	11.1	7.2	5.8	12.5	8.3
Transfer payments	41.4	7.3	0.5	0.4	0.1	9.9
Investment income	3.8	2.6	1.0	0.6	2.0	2.0
Miscellaneous income	3.2	3.2	0.5	0.4	0.4	1.6
Totals, income	100.0	100.0	100.0	100.0	100.0	100.0
1959—						
No income	9.2					1.8
Wages and salaries	37.6	74.9	90.2	92.2	85.2	76.0
Net income from self-employment . . .	5.3	10.6	7.0	6.1	12.8	8.4
Transfer payments	42.8	11.5	1.7	0.7	0.2	11.4
Investment income	4.0	2.2	1.0	0.9	1.7	2.0
Miscellaneous income	1.0	0.8	0.1	0.1		0.4
Totals, income	100.0	100.0	100.0	100.0	100.0	100.0
1961—						
No income	7.8					1.6
Wages and salaries	35.2	74.0	90.1	91.5	87.5	75.7
Net income from self-employment . . .	4.3	10.4	7.1	6.7	10.1	7.7
Transfer payments	44.4	9.1	0.7	0.1		10.9
Investment income	4.5	2.8	1.3	1.1	1.9	2.3
Miscellaneous income	3.9	3.7	0.8	0.6	0.5	1.9
Totals, income	100.0	100.0	100.0	100.0	100.0	100.0

DISTRIBUTION OF UNATTACHED INDIVIDUALS

**TABLE 11.A.4—Percentage Distribution of Unattached Individuals and
of Heads of Families, by Age Within Quintiles, 1951 and 1961**

Age	Quintiles					
	First	Second	Third	Fourth	Fifth	Total ^a
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
1951						
Unattached individuals—						
Under 25.	21.6	9.8	23.7	20.6	8.3	16.8
25 — 34	9.0	5.5	14.0	23.7	23.3	15.0
35 — 44	5.5	8.5	11.8	19.0	20.0	12.9
45 — 54	12.4	8.3	17.8	12.7	23.6	14.9
55 — 64	18.5	17.2	17.8	13.0	18.1	16.9
65 and over	33.1	50.7	15.0	11.0	6.9	23.5
Totals	100.0	100.0	100.0	100.0	100.0	100.0
Families—						
Under 25.	3.2	3.5	3.2	2.9	0.8	2.7
25 — 34	14.3	26.5	28.6	21.3	13.2	20.8
35 — 44	15.1	23.9	34.2	29.3	25.8	25.7
45 — 54	13.9	19.0	16.0	24.1	31.0	20.8
55 — 64	18.7	14.8	10.5	13.8	20.2	15.6
65 and over	34.8	12.2	7.4	8.6	9.0	14.4
Totals	100.0	100.0	100.0	100.0	100.0	100.0
Families and unattached individuals—						
Under 25.	10.9	8.3	3.9	3.1	1.0	5.5
25 — 34	10.9	22.1	28.7	22.3	14.4	19.6
35 — 44	9.6	19.6	29.9	32.2	25.1	23.2
45 — 54	12.3	17.1	18.0	20.8	30.8	19.7
55 — 64	18.5	15.3	12.8	13.2	19.5	15.8
65 and over	37.9	17.6	6.9	8.3	9.3	16.2
Totals	100.0	100.0	100.0	100.0	100.0	100.0
1961						
Unattached individuals—						
Under 25.	18.8	8.2	20.1	24.0	15.4	17.3
25 — 34	8.0	6.3	13.4	16.3	27.1	14.2
35 — 44	8.3	2.6	5.0	11.9	16.6	8.9
45 — 54	8.4	7.8	11.7	19.7	16.8	12.9
55 — 64	17.1	12.9	14.8	15.1	16.1	15.2
65 and over	39.3	62.2	35.0	13.0	8.1	31.5
Totals	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 11.A.4—Percentage Distribution of Unattached Individuals and of Heads of Families, by Age Within Quintiles, 1951 and 1961 — concluded

Age	Quintiles					
	First	Second	Third	Fourth	Fifth	Total ^a
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
1961 — concluded						
Families—						
Under 25.	5.9	6.7	3.5	3.5	1.4	4.2
25 — 34	16.3	27.9	29.1	26.6	15.6	23.1
35 — 44	16.2	23.5	31.1	31.5	30.9	26.6
45 — 54	14.7	18.1	19.7	22.2	27.8	20.5
55 — 64	15.4	12.3	10.5	10.3	16.7	13.0
65 and over	31.6	11.6	6.1	6.0	7.5	12.6
Totals	100.0	100.0	100.0	100.0	100.0	100.0
Families and unattached individuals—						
Under 25.	11.2	10.6	7.0	3.7	1.8	6.9
25 — 34	10.3	21.4	29.8	27.8	17.1	21.3
35 — 44	8.6	19.6	24.5	31.0	31.4	23.0
45 — 54	10.9	17.1	18.9	20.6	27.2	18.9
55 — 64	14.8	14.6	12.1	10.6	15.2	13.5
65 and over	44.1	16.7	7.7	6.4	7.4	16.4
Totals	100.0	100.0	100.0	100.0	100.0	100.0

^a This column reflects the demographic changes for the universe in the survey sample only rather than the total population. Comparisons with population estimates from a source such as the census are difficult because of differences in the universe covered. However, comparisons with the census sample show that, for families, the age distributions of the surveys and the census show agreement.

TABLE 11.A.5—Percentage Distribution of Unattached Individuals and of Heads of Families, by Sex Within Quintiles, 1951 and 1961

Type of unit and sex	Quintiles					
	First	Second	Third	Fourth	Fifth	Total
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
1951						
Unattached individuals—						
Male	31.3	46.6	43.8	55.0	78.1	50.8
Female	68.7	53.4	56.2	45.0	21.9	49.2
Totals	100.0	100.0	100.0	100.0	100.0	100.0
Families—						
Male	81.3	92.7	95.2	95.1	94.7	91.8
Female	18.7	7.3	4.8	4.9	5.3	8.2
Totals	100.0	100.0	100.0	100.0	100.0	100.0
Families and unattached individuals—						
Male	58.4	78.4	93.7	94.5	94.6	83.7
Female	41.6	21.6	6.2	5.5	5.4	16.3
Totals	100.0	100.0	100.0	100.0	100.0	100.0
1961						
Unattached individuals—						
Male	32.2	31.2	42.8	49.2	59.3	42.9
Female	67.8	68.8	57.1	50.8	40.7	57.0
Totals	100.0	100.0	100.0	100.0	100.0	100.0
Families—						
Male	80.1	92.0	94.9	95.4	94.9	91.5
Female	19.1	8.0	5.1	4.6	5.1	8.5
Totals	100.0	100.0	100.0	100.0	100.0	100.0
Families and unattached individuals—						
Male	52.0	78.7	89.1	93.9	94.0	81.6
Female	48.0	21.3	10.8	6.1	6.0	18.4
Totals	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 11.A.6—Percentage Distribution of Families by Size of Family and by Number of Children Under Age 16 Within Quintiles, 1951 and 1961

Year and family size	Quintiles					
	First	Second	Third	Fourth	Fifth	Total
Family size						
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
1951—						
2 persons	53.1	32.6	24.5	22.0	16.5	29.8
3 persons	19.7	23.5	25.1	21.9	21.6	22.5
4 persons	11.7	20.9	21.7	24.9	24.7	20.7
5 or more persons	15.5	23.0	28.7	31.2	37.2	27.0
Totals	100.0	100.0	100.0	100.0	100.0	100.0
1961—						
2 persons	47.1	26.3	20.9	19.8	19.4	26.7
3 persons	18.1	19.9	20.2	20.9	20.6	19.9
4 persons	12.7	20.4	24.3	24.4	21.8	20.8
5 or more persons	22.1	33.4	34.5	34.9	38.2	32.6
Totals	100.0	100.0	100.0	100.0	100.0	100.0
Number of children under age 16						
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
1951—						
No children	61.6	42.9	35.6	39.3	50.8	45.8
1 child	14.4	18.8	21.9	21.0	20.4	19.5
2 children	10.1	19.4	19.4	19.1	14.0	16.5
3 children	6.5	9.6	10.8	10.8	7.1	9.0
4 or more children	7.4	8.3	12.3	9.8	7.7	9.2
Totals	100.0	100.0	100.0	100.0	100.0	100.0
1961—						
No children	51.0	32.3	29.1	31.5	39.9	36.8
1 child	16.6	19.0	18.5	18.9	19.0	18.4
2 children	11.6	21.0	23.2	22.7	19.0	19.5
3 children	8.8	13.6	14.8	13.8	11.3	12.5
4 or more children	12.0	14.1	14.4	13.2	10.8	12.9
Totals	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 11.A.7—Percentage Distribution of Families and of Families and Unattached Individuals by Employment Status of the Head Within Quintiles, 1951 and 1961

Year and class of worker	Quintiles					
	First	Second	Third	Fourth	Fifth	Total
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
1951						
Families—						
Paid worker	35.8	75.3	82.6	81.7	75.4	70.4
Own account	13.8	11.1	8.5	8.2	15.0	11.2
Not in labour force	50.3	13.6	8.9	10.1	9.6	18.4
Totals.	100.0	100.0	100.0	100.0	100.0	100.0
Families and unattached individuals—						
Paid worker	38.4	67.9	83.3	80.6	77.1	69.2
Own account	6.9	12.5	8.6	9.4	13.1	10.1
Not in labour force	54.7	19.5	8.1	10.0	9.8	20.7
Totals.	100.0	100.0	100.0	100.0	100.0	100.0
1961						
Families—						
Paid worker	43.6	76.0	84.6	84.7	77.0	73.2
Own account	10.3	11.8	8.9	9.4	16.6	11.4
Not in labour force	46.1	12.2	6.6	5.9	6.4	15.4
Totals.	100.0	100.0	100.0	100.0	100.0	100.0
Families and unattached individuals—						
Paid worker	38.3	68.4	84.0	84.0	78.4	70.6
Own account	4.1	11.4	8.3	9.8	14.9	9.7
Not in labour force	57.6	20.2	7.6	6.2	6.7	19.7
Totals.	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 11.A.8 — Percentage Distribution of Families and of Families and Unattached Individuals by Regions, Within Quintiles, 1951 and 1961

Year and region	Quintiles					
	First	Second	Third	Fourth	Fifth	Total
1951	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Families						
Atlantic Provinces	21.9	15.6	10.9	5.9	4.7	11.9
Quebec.	22.2	30.1	26.4	24.7	28.1	26.3
Ontario.	25.5	29.2	37.3	43.6	45.9	36.1
Prairie Provinces	18.0	15.4	12.5	12.1	13.4	14.3
British Columbia	12.4	9.7	12.9	13.8	7.9	11.4
Totals	100.0	100.0	100.0	100.0	100.0	100.0
Families and unattached individuals —						
Atlantic Provinces	15.2	16.4	13.1	9.9	5.1	11.2
Quebec.	22.8	27.1	29.4	25.3	26.7	26.3
Ontario.	30.8	28.8	32.0	39.5	44.7	36.3
Prairie Provinces	18.2	16.8	15.0	12.3	12.9	14.7
British Columbia	12.9	10.8	10.4	13.0	10.6	11.5
Totals	100.0	100.0	100.0	100.0	100.0	100.0
1961						
Families —						
Atlantic Provinces	18.1	12.0	6.9	5.8	5.7	9.7
Quebec.	29.6	33.1	29.9	25.2	27.2	29.0
Ontario.	26.2	30.2	39.3	44.6	45.8	37.2
Prairie Provinces	16.6	15.3	14.4	13.2	10.8	14.1
British Columbia	9.6	9.5	9.5	11.3	10.4	10.1
Totals	100.0	100.0	100.0	100.0	100.0	100.0
Families and unattached individuals —						
Atlantic Provinces	13.0	12.9	8.6	6.1	5.3	9.2
Quebec.	24.0	29.3	27.4	26.6	26.4	26.8
Ontario	32.1	31.7	37.1	44.1	45.6	38.1
Prairie Provinces	19.9	16.0	15.9	12.5	11.9	15.2
British Columbia	11.0	10.1	11.0	10.7	10.7	10.7
Totals	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 11.A.9 — Percentage Distribution of Families and of Families and Unattached Individuals by Place of Residence, Within Quintiles, 1951 and 1961

Year and place of residence	Quintiles					
	First	Second	Third	Fourth	Fifth	Total
1951	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Families —						
Metropolitan areas	36.8	47.7	56.7	65.8	72.7	55.6
Non-metropolitan areas	63.2	52.3	43.3	34.2	27.3	44.4
Totals	100.0	100.0	100.0	100.0	100.0	100.0
Families and unattached individuals —						
Metropolitan areas	46.1	48.8	53.2	59.3	69.4	57.0
Non-metropolitan areas	53.9	51.2	46.8	40.7	30.6	43.0
Totals	100.0	100.0	100.0	100.0	100.0	100.0
1961						
Families —						
Metropolitan areas	37.4	53.9	63.5	68.9	76.0	60.0
Non-metropolitan areas	62.6	46.1	36.5	31.1	24.0	40.0
Totals	100.0	100.0	100.0	100.0	100.0	100.0
Families and unattached individuals —						
Metropolitan areas	46.6	52.5	62.7	66.8	75.7	60.9
Non-metropolitan areas	53.4	47.5	37.3	33.2	24.3	39.1
Totals	100.0	100.0	100.0	100.0	100.0	100.0

**TABLE 11.A.10 — Distribution of Gross Income, Taxes, Disposable Income
and Transfer Payments of Families and Unattached Individuals, by
Size of Income, Selected Years 1951-1961**

Year and income group	No. of family units (1)	Gross income (2)	Taxes (3)	Disposable income (4)	Transfer payments (5)	Net redistri- bution (5-3)
	'000	\$ '000,000				
1951						
Under \$500	266	64		64	32	32
\$ 500 - \$ 999	304	230		230	66	66
1,000 - 1,499	311	388	5	383	70	65
1,500 - 1,999	334	592	16	575	53	36
2,000 - 2,499	394	918	30	888	52	23
2,500 - 2,999	467	1,298	39	1,259	69	30
3,000 - 3,999	673	2,335	100	2,236	112	13
4,000 - 4,999	347	1,526	85	1,441	60	-25
5,000 - 9,999	449	2,959	223	2,736	71	-153
10,000 and over	63	1,184	285	899	8	-277
Totals, 1951	3,608	11,494	783	10,711	593	-189
1954						
Under \$500	220	56	—	56	38	38
\$ 500 - \$ 999	296	224		224	86	86
1,000 - 1,499	307	378	5	373	101	95
1,500 - 1,999	270	472	14	458	71	57
2,000 - 2,499	348	781	31	750	69	38
2,500 - 2,999	382	1,047	38	1,009	75	37
3,000 - 3,499	405	1,318	63	1,255	140	
3,500 - 3,999	378	1,418	80	1,337		-4
4,000 - 4,499	317	1,347	75	1,272	98	-49
4,500 - 4,999	211	995	73	922		
5,000 - 6,999	491	2,858	210	2,648	94	-116
7,000 - 9,999	198	1,599	146	1,454	43	-102
10,000 - and over	107	1,867	341	1,526	21	-320
Totals, 1954	3,930	14,360	1,076	13,284	836	-240
1957						
Under \$1,000	474	237	—	237	102	102
\$1,000 - \$ 1,499	302	356	5	350	151	146
1,500 - 1,999	288	508	8	501	109	101
2,000 - 2,499	319	716	27	689	92	65
2,500 - 2,999	330	910	32	878	86	53
3,000 - 3,499	353	1,136	61	1,074	67	6
3,500 - 3,999	387	1,438	72	1,366	76	4
4,000 - 4,499	323	1,375	90	1,284	69	-21
4,500 - 4,999	281	1,341	77	1,264	71	-6
5,000 - 5,999	441	2,440	165	2,275	100	-65
6,000 - 6,999	275	1,802	133	1,670	61	-71
7,000 - 9,999	388	3,317	256	3,062	99	-156
10,000 and over	157	2,779	460	2,318	39	-422
Totals, 1957	4,318	18,355	1,386	16,969	1,122	-264

**TABLE 11.A.10 — Distribution of Gross Income, Taxes, Disposable Income
and Transfer Payments of Families and Unattached Individuals, by
Size of Income, Selected Years 1951-1961 — concluded**

Year and income group	No. of family units (1)	Gross income (2)	Taxes (3)	Disposable income (4)	Transfer payments (5)	Net redistri- bution (5-3)
1959						
Under \$1,000	460	233	—	233	140	140
\$1,000 — \$ 1,999	277	351	5	346	148	143
1,500 — 1,999	273	473	6	467	149	143
2,000 — 2,499	288	652	21	631	121	100
2,500 — 2,999	311	856	25	831	108	83
3,000 — 3,499	385	1,245	55	1,190	108	53
3,500 — 3,999	356	1,329	62	1,267	88	26
4,000 — 4,499	372	1,568	92	1,476	88	-4
4,500 — 4,999	327	1,551	80	1,471	90	10
5,000 — 5,499	294	1,541	98	1,443	77	-21
5,500 — 5,999	240	1,370	81	1,289	60	-21
6,000 — 6,999	363	2,364	162	2,202	83	-79
7,000 — 7,999	225	1,686	130	1,556	57	-73
8,000 — 9,999	230	2,079	158	1,921	54	-104
10,000 — 14,999	143	1,791	318	1,473	47	-271
15,000 and over	65	1,758	250	1,508	19	-231
Totals, 1959	4,609	20,847	1,543	19,304	1,437	-106
1961						
Under \$1,000	475	249		249	162	162
\$1,000 — \$ 1,999	501	741	11	730	293	282
2,000 — 2,999	575	1,442	46	1,396	262	216
3,000 — 3,499	323	1,056	50	1,006	98	48
3,500 — 3,999	339	1,284	58	1,226	95	37
4,000 — 4,499	356	1,503	94	1,409	96	2
4,500 — 4,999	350	1,673	96	1,577	92	-4
5,000 — 5,999	596	3,237	210	3,027	147	-63
6,000 — 6,999	431	2,753	198	2,555	115	-83
7,000 — 7,999	280	2,055	153	1,902	72	-81
8,000 — 9,999	313	2,801	237	2,564	87	-150
10,000 — 14,999	188	2,313	251	2,062	49	-202
15,000 and over	73	2,006	462	1,544	22	-440
Totals, 1961	4,800	23,113	1,866	21,247	1,590	-276

Appendix A

1961 CENSUS OF CANADA DEFINITIONS AND CONCEPTS

The census data upon which the analysis of income and other characteristics is based were collected on three questionnaires—(1) a basic population questionnaire [Form 2A] which was applicable to all persons in the population, (2) a housing questionnaire [Form 2B] which was collected from every fifth private household, and (3) an income questionnaire which was collected from every person aged 15 and over in every fifth private non-farm household.

1. QUESTIONNAIRES

Population Questionnaire

The reference date for the census was June 1, 1961. The basic population data were collected from all permanent Canadian residents and included Canadian persons temporarily abroad, as for example, the armed forces and members of the diplomatic service. The census excluded persons in Canada on a temporary basis, for example, tourists and members of the diplomatic corps. The following questions were asked:

General Population Characteristics.—Relationship of each person to the head of the household, sex, age, marital status, place of birth, period of immigration of the immigrant population, country of citizenship, ethnic origin, religion, mother tongue, official languages spoken, education and school attendance.

Labour Force Characteristics.—Persons 15 and over were asked whether they had a job during the week preceding the census. If they had no job they were asked whether they looked for work during the previous weeks. Those who reported they were not looking for work were asked whether they had a job at any time during the previous 12 months. Those persons indicating that they had a job or were looking for work or had worked during the previous year were asked the number of hours usually worked each week, the industry worked in and the occupation followed — either the current job or the last job held. Labour force participants were also asked to report class of worker — whether they worked for others on wages or salaries or as unpaid workers in a family business or whether they operated their own business with paid help or without paid help. All labour force participants were asked in how many weeks of the previous year they had worked for wages and salaries and the amount of the gross wage and salary income received.

Housing Questionnaire.—In addition to the population questions, every fifth private dwelling was enumerated on housing characteristics.

A *dwelling* was defined to be a structurally separate set of living quarters with a private entrance either from outside or from a common hall, lobby, vestibule, or stairway inside the building.

The following types of dwellings were excluded from the enumeration as not being private dwellings but rather institutional or collective dwellings: institutions such as hospitals, nursing homes, hostels, penal institutions, hotels, motels, tourist homes, boarding schools and university residences, convents and monasteries, lodging houses with 10 or more lodgers, construction camps and military establishments. In general, a private dwelling was usually a dwelling occupied by one person alone or by a family. In some instances private dwellings might contain lodgers but the number of lodgers could not exceed nine.

Sample Questionnaire.—Every fifth dwelling which was sampled for housing information was also designated a sample dwelling for migration, fertility and income data. In these dwellings, after completion of the population and housing questionnaires described above, all residents of the sample dwellings who were aged 15 or older were asked a series of questions on any changes in place of residence since June 1, 1956, and, in the case of married women, the number of children live-born. All persons or groups of persons occupying a dwelling constitute a *household*.

In all sample households, except those located on farms, the questionnaires were then left for all persons aged 15 and over for completion of a series of questions on amounts and sources of income. Farm households were excluded from the sample because households operating farms were asked to complete questionnaires for a census of agriculture. In the eligible sample household the income questions were to be completed by all persons aged 15 and over, not only those with incomes. Enumerators made a return visit to households to pick up completed questionnaires.

For census purposes, a *farm* was defined as a holding of one or more acres having sales of \$50 or more of agricultural products during the twelve months preceding the census. It should be noted that all dwellings or households located on farms were not sampled for income statistics, not simply dwellings occupied by farm operators. Some dwellings excluded from the income sample may have been occupied by persons who were retired or who were working but not engaged in farming as an activity. Conversely, some farm operators reside off their farms and, as a result, were included in the income sample because their residence was considered to be a non-farm residence. Statistics on labour force characteristics indicate that 225,000 males and 117,000 females resident on farms were in the labour force and were working as other than farm operators. Some of these would have been unpaid family workers working on family-owned farms but more than half these persons were in non-farm occupations. All of these persons were omitted

from the income sample while, in total, the weighted income sample estimates included approximately 20,000 farm operators who were resident off farm.¹ Income statistics for this group would be incomplete since the census questionnaire did not include income from farming operations among the income components.

2. RECONCILIATION OF SAMPLE ESTIMATES WITH POPULATION DISTRIBUTION

The sample was weighted for all census tracts, cities of 30,000 and over and counties to the population total of persons aged 15 and over resident in private non-farm households in tracts, cities and counties. Separate weights were assigned using sex and class of worker as the weighting factors. For the total population aged 15 and over, Table A.1 presents a partial reconciliation between the sample and the national population.

Age distributions are not available for all groups excluded from the twenty per cent sample so that a complete reconciliation cannot be effected. As well as farm residents, other categories of population excluded for sampling purposes were Canadians temporarily resident abroad and population which was missed during the regular enumeration and enumerated late. This latter group includes families or persons who reported that they were missed during the main enumeration or who were reported as being missed by postal authorities as a result of a postal check. In theory, the adjustments should have been made for population missed during the initial enumeration but it was impossible to separate this group in such a way as to obtain estimates for weighting purposes. The largest category of Canadians temporarily resident abroad were military personnel and their families. These are probably concentrated in the 25 to 34 age group, the age group for which the discrepancy is greatest. In total, 47,000 persons of all ages were enumerated abroad while 55,000 persons of all ages were enumerated after the main enumeration was completed.

3. DEFINITIONS

Total Income

Each household resident in the non-farm sample households was asked to report total income received from the sources listed below. The time period involved was the 12 months ending June 1, 1961 or, alternatively, if this information was not available, the income received in the calendar year 1960. For net earnings, if the respondent could not report earnings for the 12 months ended June 1, it was suggested that he report either 1960 earnings or the earnings for the latest fiscal year. Income was defined to consist of the following components.

¹The total number of farm operators in Canada on June 1, 1961, was approximately 393,000.

TABLE A.1—Reconciliation Between Population Aged 15 and Over Resident in Private Non-farm Households and Total Population, 1961

Item	Total population 15 +	Age group				
		15 - 24	25 - 34	35 - 44	45 - 64	65 +
Number in population	12,046,325	2,616,205	2,481,107	2,389,885	3,167,974	1,391,154
Excluded from 20 per cent sample	1,892,572	471,045	303,064	337,359	536,657	244,447
Resident in Northwest Territories	13,771	3,938	4,005	2,629	2,605	594
Rural farm population	1,298,776	324,835	197,260	246,919	395,924	133,838
Inmates of institutions	142,882	19,083	14,867	15,626	33,268	60,038
Resident in collective households	290,306	96,020	52,920	39,300	68,305	33,761
Population not at permanent address	111,939	18,441	28,712	26,250	25,916	12,620
Urban farm population ^a	34,898	8,728	5,300	6,635	10,639	3,596
Population sampled for income data	10,153,753	2,145,160	2,178,043	2,052,526	2,631,317	1,147,707
Actual 20 per-cent sample estimates	10,101,172	2,145,144	2,145,187	2,043,827	2,632,876	1,134,138
Discrepancy	52,581	16	32,856	8,699	-1,559	12,569

^a Age breakdowns are not available for farm population resident in urban areas. The total was 55,615 and it was assumed that the proportion aged 15 and over was the same as that of the rural farm population.

SOURCE: DBS, 1961 Census of Canada, Bull. 98-551, Introduction to Vol. IV.

(a) Income from Employment

Wages and Salaries.—Gross cash wages and salaries earned before deductions for such items as income tax, unemployment insurance, pension contributions or other similar deductions. Wage and salary income includes money received as commissions, tips and piece rate payments. Payment in kind, as, for example, free room and board provided an employee, was not included in the income reported. Members of the armed forces not resident in military camps were included in the sample and all cash income received as military pay and allowances was reported as wages and salaries. This is at variance with the definition of wages and salaries in other DBS statistical series. Intercensal estimates of the labour force are restricted to the civilian labour force and estimates of aggregate wages and salaries do not include military pay and allowances as a component. In total, approximately 67,000 of the persons with income were members of the armed forces. Nearly two per cent of the income reported as wages and salaries appears to be military pay and allowances.

Net Earnings from Own Business or Professional Practice.—Net earnings were defined as consisting of gross receipts minus expenses from a business or professional practice which the person operated himself or in partnership. All of the net earnings were to be reported whether withdrawn for personal use or retained in the business. The earnings reported were not to include rental income received from the rental of real estate or dividends received from stock ownership in any corporation which the person owned. These were considered to be receipts of investment income. To arrive at an estimate of net income, individuals were to deduct only current business expenditures, not personal and living expenses. They were also to exclude capital expenditures on the purchase of land, buildings or machinery or permanent improvements of existing buildings.

The earnings question was restricted to earnings from a business other than farming. Income earned from the operation of a farm was to be excluded because all farm operators were asked to complete a further questionnaire concerning their farming operations. The data collected on the farm questionnaire were not matched with the population data as the questionnaire did not contain information on net farm income. Because of the exclusion of farm income, the incomes reported by those farm operators resident off-farm are incomes from off-farm sources only.

(b) Government Transfer Payments

Family Allowances.—This item of income was reported by the mother or, if the mother was not a member of the household, by the legal guardian. It was decided for analytical purposes to combine this income with the income of the father, where present in the household, rather than to consider this as the income of the mother. If this change in treatment had not been adopted the proportion of women shown as having no income would have been sharply reduced and the number of income recipients with incomes in the lower income brackets, especially that under \$500, would probably have been higher by at least one million income

recipients. The income distribution of women, except in the case of widows and women separated from their husbands, is the income distribution exclusive of family allowance receipts.

Old Age Pensions.—Receipts of old age assistance payments from the provincial governments to persons aged 65 to 69 and federal old age pensions payable to persons aged 70 and over.

Other Income from Federal, Provincial and Municipal Governments.—This includes the following types of income receipts: veterans' pensions, war veterans' allowances, pensions to widows and dependants of veterans, unemployment insurance benefits, workmen's compensation, cash relief payments, mothers' allowances and pensions to the blind and disabled. Not included were retirement pensions paid to retired government employees or former members of the armed forces or the RCMP which were to be reported as retirement pensions.

(c) Investment Income

Bond and Bank Interest and Dividends.—Dividends received from stock ownership, bond interest and bank interest on deposits.

Income from Other Investments.—This included interest earned on mortgage investments, net rents from real estate owned and leased to others, regular income from an estate or trust fund, interest from loans or interest received on deposits in trust companies and credit unions.

(d) Other Income

Retirement Pensions.—Pensions arising from the previous employment of either the person reporting or of a relative. Respondents were to include any lump-sum allowances paid upon retirement but not refunds of pension fund contributions collected because an employee resigned. Pensions of retired civil servants as well as retired armed forces personnel were reported here as well as pensions received from private employers.

Other Money Income.—This included other income sources not reported in any of the above categories as, for example, alimony, net income from roomers and boarders, income received from abroad, income from annuities or periodic contributions for support from persons not resident in the same household.

The following types of cash receipts were not considered to be income: gifts, income tax refunds, capital gains or losses on the sale of investments or property, receipts from the sale of assets, inheritances or bequests, lump sum receipts from insurance policies, and gambling gains.

Age

This is the age at the last birthday before June 1, 1961.

Major Sources of Income

These are the income components which constitute the largest components of the total income of an individual or family. The classification used was: (a) wages and salaries, (b) net income from self-employment, (c) government transfer payments, and (d) other income (investment income, retirement pensions or miscellaneous income receipts). In most instances the major source of income would comprise more than half of the total income of the individual or family, although it is possible where the individual had more varied sources of income that the largest individual item might account for less than one half of the income.

Marital Status

Persons who were separated from their husbands or wives were classified as *married*. Persons whose marital status is "other" consist of widowed or divorced persons.

Relationship to Head of Household

In a household occupied by a married couple the husband was considered to be *head* of household. In households consisting of one parent the parent was considered to be head of household regardless of the parent's age or dependence. In some of these cases, the parent might not actually be responsible for the financial maintenance of the household. However, where the household occupants included a parent and married children the person designated as head of household was the person mainly responsible for the maintenance of the household. In other types of households, household occupants were asked to designate the person considered to be the head of household.

Labour Force

The census asked a series of questions on the labour force participation of persons aged 15 and over. Respondents were asked to answer the following questions: Did you have a job of any kind last week? (If no) Did you look for work last week? (If no) Did you have a job at any time in the past 12 months?

The *current labour force* consists of all persons answering "yes" to either the first or the second of these questions – that is, persons indicating that they had a job at the time of the census or were looking for work. The total labour force for the year or the gross labour force would include persons answering "yes" to the third question as those replying in the affirmative to the first two. In the analysis in Chapter Three *labour force participants* are those persons with labour force attachment either currently or during the previous twelve months. Statistics are usually shown separately for those in the current labour force and for those not in the current labour force. Most of the analytic data in Chapter Four refer to the current labour force.

Income recipients designated as *not in labour force* are those persons aged 15 and over who answered "no" to the three questions on labour force experience.

Class of Worker and Occupation

Persons answering "yes" to any of the three questions on labour force participation were asked a series of additional questions about their current or last employment — number of hours usually worked each week, name of employer, kind of business or industry, kind of work carried out in the industry.

For the occupation followed, respondents were asked the *class of worker* — whether they *worked for others*, either as wage or salary earners (employees) or as unpaid family workers or whether they operated their own business (*self-employed*) with or without paid help.

Wage and salary earners or employees are persons who work for others for wages or salaries. They include persons working for tips or commissions or for room and board, as well as persons paid fixed hourly rates or monthly salaries. Unpaid family workers are persons working without pay on a farm or in a business operated by a member of the family as, for example, a wife working as a sales clerk in a store owned by her husband. Self-employed workers are persons working for profit or fees in their own business, profession or trade.

The analysis in this study is restricted to an analysis of earnings by occupation and not by industry. The *occupation* describes the kind of work engaged in, as, for example, sales manager, civil engineer, bus driver or stationary engineman. Some of the analysis of earnings in the text is for major occupation groups and some for detailed or selected occupations. A list of the detailed occupations and the broad occupational groups is given at the end of this Appendix. For more information as to the occupational classifications, the DBS 1961 Census of Canada *Occupational Classification Manual* should be consulted.

All persons in the labour force were asked to report in how many weeks they worked for wages or salaries in the 12 months preceding the census. Persons reported the number of weeks in which any wage and salary work was done, not the estimated weeks worked. That is a sales clerk working one day a week for 52 weeks would answer 52 weeks, as would a sales clerk working five days a week the year round. This question was not restricted to wage and salary earners in the current labour force because it referred to the previous year and persons with labour force experience may have changed their class of worker status during the period. All persons indicating that they had worked for wages and salaries were asked to report gross wage and salary income earned regardless of current class of worker status.

For analytic purposes in Chapter Four, *full-time wage and salary earners* were considered to be those persons who reported working in 49 to 52 weeks during the previous 12 months and who usually worked 35 hours per week or more. Such a categorization assumes that the number of hours reported was representative of the work patterns of the previous year, while, in fact, it may only represent hours being worked at current employment. If hours reported were not representative of most of the year's employment this may result in some misclassification of full-time

versus part-time workers. This misclassification may, of course, result in an understatement as well as an overstatement of the number of persons working full-time.

The series of questions on labour force activity were asked on the census of all persons aged 15 and over. In addition, as indicated above, income questions were asked of the persons aged 15 and over resident in a 20 per cent sample of non-farm households. Respondents were asked to report amounts received of each of the income sources itemized earlier in this section. The questionnaire included a question on amount received as gross wages and salaries although a question on these receipts was on the main questionnaire. There were several reasons for this repetition. The main questionnaire asked for the reporting of wage and salary income to the nearest hundred dollars where earnings were less than \$12,000. For those earning more than \$12,000, respondents were only asked to report whether earnings were \$12,000 to \$15,000 or over \$15,000. On the sample questionnaire respondents were asked to report the actual amount to facilitate deriving total income and average income figures.

Further, the main questionnaire was completed by the enumerator while the sample questionnaire was completed by the individual. The enumerator, in many instances, may not have obtained earnings data directly from the individual concerned but from some other member of the household, such as the wife. Where reporting is second hand there is the possibility that reporting may not be as accurate. Collecting the data twice by two different methods of enumeration was also intended to be a test of the consistency of reporting under different enumerating approaches.

Income from Employment

Income from employment as defined for purposes of this study consists of total receipts of income earned either as an employee or on own account, that is, the total amount reported from wages and salaries plus net earnings from business or professional practice. With few exceptions which are indicated, the data on income from employment used in this monograph are the data collected on the sample questionnaire.

It should also be noted again that the questions in respect to earnings were restricted to earnings in cash and did not include estimates of reimbursement in kind such as free room and board. Certain categories of workers such as unpaid family workers may not have received any money earnings. In total, approximately 51,000 males and 58,000 females classified as being in the current labour force reported no cash income from employment.

In all tables analyzing total income receipts of individuals or total earnings of the labour force, all median and average income figures are calculated only for those persons in receipt of income or earnings.

Schooling

Persons are classified by the highest grade or year of schooling ever attended at the elementary, high school or secondary school or university level. Although for those with university training information was obtained as to whether the person secured a degree or whether they attended but did not obtain a degree, the questionnaire did not differentiate between high school graduates and non-graduates. In some provinces, the high school curriculum is only four years and in others it is five. For university entrance purposes some universities consider that completion of the fifth year of high school is equivalent to completing one year of university. Possibly, therefore, completion of four years of high school should be considered as high school and the fifth year of high school should be considered as some university training. For analytic purposes it might have been preferable to tabulate separately persons with four years and persons with five years of high school training.

Place of Residence

In the 1961 Census *urban* areas were defined as all cities, towns, and villages with populations of 1,000 and over as well as the urbanized fringes of (a) cities classed as metropolitan or other major urban areas and (b) certain smaller cities if the city together with its urbanized fringe was 10,000 population or over. The remainder of the population was classed as *rural*.

Metropolitan Areas

Metropolitan areas relate to groups of urban communities in Canada which are in close economic, geographic and social relationships. With two exceptions, St. John's, Nfld., and Saint John, N.B., they consist of urban agglomerations of 100,000 or more residents. The metropolitan areas of these two cities were just below 100,000 in population.

4. INDIVIDUALS AND FAMILY UNITS

As already indicated, the income statistics on the census were restricted to the incomes of persons resident in private non-farm households. The data collected were tabulated on two demographic bases: (a) the incomes of individuals, that is, the income distribution of the population aged 15 and over, and (b) the incomes of families and persons not in families. The income distribution of individuals is discussed in Chapters Three and Four and family incomes in Chapter Six.

Table A.1 reconciled the universe covered by the 20 per cent population sample and the total population aged 15 and over on June 1, 1961. Tables A.2 and A.3 present further reconciliations between the estimates based upon the sample and the total population. Table A.2 shows the total current labour force in Canada as of June 1, 1961 and the numbers in the current labour force resident in private non-farm households, as of that date, by broad occupation and sex of worker. The

TABLE A.2—Total Labour Force and Labour Force Resident in Private Non-farm Households,
by Broad Occupation and Sex, June 1, 1961

Occupation	Males			Females		
	Total labour force ^a	Labour force in sample ^b	Difference ^c	Total labour force ^a	Labour force in sample ^b	Difference ^c
	No.	No.	No.	No.	No.	No.
Managerial	481,379	463,574	17,805	57,661	50,411	7,250
Professional and technical	356,578	328,987	27,591	272,333	200,348	71,985
Clerical	324,811	316,359	8,452	509,345	489,453	19,892
Sales	263,229	258,384	4,845	147,486	141,976	5,510
Service and recreation	400,399	329,115	71,284	395,948	335,874	60,074
Transport and communication	354,736	333,891	20,845	37,968	35,337	2,631
Farmers and farm workers	573,098	92,706	480,392	75,868	7,920	67,948
Loggers and related workers	78,826	56,690	22,136			
Fishermen, trappers and hunters	35,648	30,903	4,745			
Miners, quarrymen and related workers	65,119	56,018	9,101			
Craftsmen, production process and related workers	1,354,594	1,280,596	73,998	205,189	193,416	11,773
Labourers, n.e.s.	294,059	260,403	33,656	20,943	18,806	2,137
Occupation not stated	123,042	67,751	55,291	43,178	21,781	21,397
All Occupations	4,705,518	3,875,377	830,141	1,766,332	1,495,620	270,712

^aAll persons aged 15 and over in labour force on June 1, 1961, exclusive of institutional population.

^bPersons resident in private non-farm households in labour force on June 1, 1961, and sampled for income data.

^cPersons in total labour force for whom complete income data are not available.

SOURCE: For the total labour force, DBS, 1961 Census of Canada, Occupations by Sex (Cat. No. 94-503), for the non-farm labour force, unpublished figures from the 1961 Census.

sample did not secure data on earnings from 18 per cent of the male labour force and 15 per cent of the female labour force. Among males, nearly 60 per cent of workers excluded were farmers. Among women half of exclusions were accounted for by professional, technical, service and recreation occupations. These exclusions probably largely consist of women resident in institutions – nurses in training, nuns resident in convents, and women in service occupations resident in hotels, institutions and so forth; women workers in farming occupations would be largely unpaid family workers working on family farms.

Table A.3 shows the population coverage by province. In those provinces where agriculture is of minor importance, the exclusions are not significant but in provinces where farming is still a major activity, substantial proportions of the population were excluded from the income sample. In Newfoundland only seven per cent of the population was outside the universe while in Ontario the ratio was only 12 per cent. In Prince Edward Island and Saskatchewan income data were not collected for more than one third of the population. These differences in coverage affect the conclusions which can be drawn as to regional income differentials.

Definition of the Family Unit

The family income data analyzed in this study are the income distributions of "economic" families. This family definition differs from the family definition

TABLE A.3—Total Population Aged 15 and Over and Population Aged 15 and Over Resident in Private Non-farm Households, by Province, June 1, 1961

Province	Total population 15 and over ^a	Population 15 and over non-farm ^b	Difference ^c
	No.	No.	No.
Newfoundland	266,290	247,159	19,131
Prince Edward Island	66,928	41,477	25,451
Nova Scotia	480,679	413,521	67,158
New Brunswick	370,749	311,944	58,805
Quebec	3,395,816	2,872,404	523,412
Ontario	4,228,343	3,707,760	520,583
Manitoba	621,580	478,344	143,236
Saskatchewan	610,267	387,941	222,326
Alberta	862,620	639,470	223,150
British Columbia	1,119,939	993,692	126,247
Totals	12,046,325	10,101,172	1,945,153

^aTotal population aged 15 and over.

^bPopulation aged 15 and over sampled for income data.

^cPopulation aged 15 and over not sampled for complete income data.

SOURCE: For the total population aged 15 and over, DBS, 1961 Census of Canada, *Age Groups* (Cat. No. 92-542); for the non-farm population, *Incomes of Individuals* (Cat. No. 98-501).

which is basic to 1961 Census family statistics. The economic family consists of all relatives living together in the same household and related by "blood, marriage or adoption"; persons not in economic families are persons living alone or persons living in a household with others to whom they are not related. The official census family definition is a more restricted one; a family consists of a married couple and any unmarried children resident with them or, alternatively, a father or mother who have unmarried children with them. All other persons are considered to be non-family members. Thus, in a household in which a husband and wife resided with a married son and daughter-in-law, both couples would be considered to be separate families. In a home in which a married couple had living with them the wife's widowed mother, the mother would not be considered to be part of her daughter's family. Special tabulations were prepared from the census statistics on an economic family basis for purposes of this study.²

The economic family definition is used in this report in preference to the census family definition for a number of reasons. It is the definition used on inter-censal sample surveys and thus is consistent with data available on family income trends through time. It is the concept used in a number of other countries such as the United States and so is more appropriate for international comparisons. It is also perhaps a more appropriate concept for the examination of income adequacy and welfare. In 1961 it was relatively rare for two generations of related married couples to live together in the same residence. In all of Canada less than four per cent of all census families were families who did not have their own homes and who lived in the homes of relatives. Both relatively and in absolute numbers, doubling-up of married couples has been declining so that the predominant living pattern where couples are concerned is residence in a separate household.

The typical doubling-up of 1961 was that of a relative such as a widowed parent with relatives such as children. This occurred most often in the case of women, especially those in older age groups, although, again, such doubling-up is also declining in importance. The income data show that the population living with relatives are more likely to have no incomes or lower incomes than the persons living alone away from relatives. This suggests that economic necessity may be a strong factor in doubling-up although there may also be other factors such as the disabilities that may develop with age.

The main differences between the economic family definition and the census definition are that the number of families and the number of persons not in families are lower under the economic family definition while income levels are higher. The statistics for persons not in families show greater changes than those on families if the family unit definition is changed. Tables A.4, A.5 and A.6 present comparative figures for the two concepts.

²Family income statistics on the census family concept were published in Volume IV, 1961 Census of Canada, Reports No. 98-503 and 98-504 and in Special Reports 98-520 and 98-521. Census statistics on the income and the characteristics of economic families were published in 1961 Census of Canada, *Economic Families* (Cat. No. 98-524) Bull. SX-10. Some of the statistics in this monograph were drawn from this report.

APPENDIX A

TABLE A.4—Comparison of Family Income Distributions, by Size, on Census Family and Economic Family Definitions, Year Ended May 31, 1961^a

Income size	Census families	Economic families
	p.c.	p.c.
Under \$1,000	4.5	3.8
\$ 1,000 – \$1,499	4.0	3.6
1,500 – 1,999	4.3	4.0
2,000 – 2,499	4.9	4.6
2,500 – 2,999	5.6	5.3
3,000 – 3,499	7.4	7.0
3,500 – 3,999	7.8	7.4
4,000 – 4,499	8.8	8.5
4,500 – 4,999	7.7	7.6
5,000 – 5,499	8.0	7.9
5,500 – 5,999	5.8	5.9
6,000 – 6,999	9.7	10.1
7,000 – 7,999	6.6	7.2
8,000 – 9,999	7.2	8.2
10,000 – 14,999	5.3	6.3
15,000 and over	2.5	2.8
Totals	100.0	100.0
Families No.	3,656,968	3,626,964
Average income \$	5,449	5,704
Median income \$	4,675	4,882

^aFamilies resident in private non-farm households only.

The number of non-farm census families was 3,656,968, their average income \$5,449 and their median income \$4,675. On an economic family basis, the number of families declined to 3,626,964 while the average income rose to \$5,704 and the median to \$4,882. The decline in the numbers of non-family members when family concepts change was much greater; the number of male non-family members dropped from 622,821 to 451,470 and of female non-family members from 784,455 to 503,572. Some 28 per cent of males classified as non-family members under the census family definition resided with relatives and 36 per cent of women had similar living arrangements. Average incomes for males rose from \$2,621 to \$2,777 for males and from \$1,751 to \$1,946 when definitions were changed.

Table A.6 shows the change in the numbers of non-family members by age and sex groups under the alternative definitions. The importance of age as a reason for doubling-up is especially evident in the case of women where 43 per cent of women aged 55 and over who were treated as non-family members in census statistics were, in fact, residing with relatives. More than half of those reporting no

TABLE A.5—Comparison of Income Distribution, by Size, of Persons Not in Families, by Sex, on Census and Economic Family Unit Definition, Year Ended May 31, 1961^a

Income size	Males		Females	
	Census family	Economic family	Census family	Economic family
	p.c.	p.c.	p.c.	p.c.
No income	4.8	4.8	9.1	7.3
Under \$1,000	23.2	20.1	36.3	31.2
\$ 1,000 — \$1,499	10.5	10.1	11.8	12.7
1,500 — 1,999	7.5	7.3	8.8	9.8
2,000 — 2,499	8.4	8.3	8.6	9.3
2,500 — 2,999	7.6	7.8	6.3	7.3
3,000 — 3,999	17.9	19.3	10.7	12.5
4,000 — 4,999	9.7	10.4	4.1	4.8
5,000 — 5,999	4.8	5.4	1.8	2.1
6,000 — 7,999	3.3	4.0	1.4	1.7
8,000 — 9,999	1.0	1.2	0.5	0.6
10,000 and over	1.4	1.5	0.6	0.7
Totals	100.0	100.0	100.0	100.0
Persons No.	622,821	451,470	784,455	503,572
Average income \$	2,621	2,777	1,751	1,946
Median income \$	2,238	2,464	1,195	1,453

^aPersons resident in private non-farm households only.

incomes in these age groups lived with relatives. The conclusions to be drawn about the economic circumstances of the aged, as pointed out in Chapter Nine, are very much affected by the family unit definition employed.

In total, at the time of the 1961 Census there were approximately 4,106,000 economic families in Canada and 1,473,000 persons who were not members of economic families. Of these, 479,000 families and 518,000 persons not in families were not sampled for complete income data. The coverage of families was higher than the coverage of persons not in families. The majority of families excluded were resident on farms. In the case of persons not in families some 160,000 were inmates of institutions while another large group were probably excluded because they were lodgers in large lodging houses.

The many purposes for which income statistics are required suggest that income data should be produced upon a variety of family bases — for example, income distributions for the nuclear or census family, income distributions for economic families and incomes of married couples exclusive of the incomes of adult children. Broad family definitions, for example, may obscure significant income trends through time, especially for some of the groups. The doubling-up of relatives

TABLE A.6—Numbers of Families and Persons Not in Families, by Age Group, on Census and Economic Family Definitions, June 1, 1961^a

Age of head or person	Families	Persons not in families			
		Males		Females	
		No. income	With income	No income	With income
Census family definition—					
Under 25	168,311	8,426	104,247	10,600	101,003
25–34	869,222	4,162	113,296	5,485	66,707
35–44	935,893	3,251	74,465	5,609	58,378
45–54	756,787	4,236	71,869	11,835	83,257
55–64	477,732	6,444	74,867	23,423	114,937
65–69	170,197	2,696	38,715	11,386	73,165
70 and over	278,826	586	115,561	3,073	215,597
Totals	3,656,968	29,801	593,020	71,411	713,044
Economic family definition—					
Under 25	149,134	5,249	77,447	6,096	80,162
25–34	831,742	3,438	88,261	3,984	51,366
35–44	919,759	2,811	57,632	3,818	43,791
45–54	757,157	3,438	54,739	6,409	57,393
55–64	491,119	4,817	56,281	10,119	75,482
65–69	178,408	1,735	27,321	5,562	45,373
70 and over	299,645	216	68,085	6,268	113,391
Totals	3,626,964	21,704	429,766	36,614	466,958

^aFamilies and persons resident in private non-farm households only.

is influenced by such factors as the depression of the 1930s, the housing shortages of the war years or an inadequate income in old age. It is recognized that statistics tabulated on an economic family definition may conceal the poverty of sub-groups of the population whose characteristics are submerged under a broader grouping. Changing trends in living patterns affect the shape of the income distribution and the average income per family unit. It has been suggested that for an evaluation of real income changes through time of different groups in the population narrower family definitions are required so that the statistics will not be influenced in living arrangements.³

³For a discussion of the effect on income statistics of changes in family living arrangements and of the importance of the unit of measurement for interpreting trends through time see Dorothy Brady, "Research on the Size Distribution of Income", *Studies in Income and Wealth Vol. XIII*, National Bureau of Economic Research, New York, 1951; Morgan, David, Cohen and Brazer, *Income and Wealth in the United States*, Chapter 3, McGraw-Hill, New York, 1962; and James N. Morgan, "Measuring the Economic Status of the Aged", *International Economic Review*, Vol. 6 No. 1, January 1965.

LIST OF OCCUPATIONS

Managerial Occupations

Advertising managers
 Credit managers
 Sales managers
 Delivery managers
 Office managers
 Postmasters
 Purchasing agents and buyers
 Owners and managers, n.e.s., in —
 Forestry, logging
 Mining, quarrying, oil wells
 Manufacturing —
 Food and beverage industries
 Tobacco products industries
 Rubber industries
 Leather industries
 Textile industries
 Knitting mills
 Clothing industries
 Wood industries
 Furniture industries
 Paper and allied industries
 Printing, publishing and allied industries
 Primary metal industries
 Metal fabricating industries (except machinery and transportation equipment industries)
 Machinery industries (except electrical machinery)
 Transportation equipment industries
 Electrical products industries
 Non-metallic mineral products industries
 Petroleum and coal products industries

Chemical and chemical products industries
 Miscellaneous manufacturing industries
 Construction
 Transportation, communication and other utilities
 Wholesale trade
 Retail trade
 Finance, insurance
 Commodity, Business and Personal Service
 Education and related services
 Health and welfare services
 Motion picture and recreational services
 Services to business management
 Personal services
 Miscellaneous services
 Public administration
 Federal administration (inc. other government)
 Provincial administration
 Local administration
 Unspecified

Professional and Technical Occupations

Professional engineers
 Civil engineers
 Mechanical engineers
 Industrial engineers
 Electrical engineers
 Mining engineers
 Chemical engineers
 Professional engineers, n.e.s. (inc. metallurgists and metallurgical engineers)
 Physical Scientists

APPENDIX A

Chemists	Artists (except commercial) and art teachers
Geologists	Authors, editors and journalists
Physicists	Musicians and music teachers
Physical scientists, n.e.s. (meteorologists, seismologists, astronomers)	Other professionals
Biologists and Agricultural Professionals	Architects
Biological scientists (bacteriologists, botanists, entomologists)	Draughtsmen
Veterinarians	Surveyors
Agricultural professionals, n.e.s.	Actuaries and statisticians
Teachers	Economists
Professors and college principals	Computer programmers
School teachers	Accountants and auditors
Teachers and instructors, n.e.s.	Dietitians
Health Professionals	Social welfare workers
Physicians and surgeons	Librarians
Dentists	Interior decorators and window dressers
Nurses, graduate	Photographers
Nurses in training	Science and engineering technicians, n.e.s.
Physical and occupational therapists	Professional occupations, n.e.s.
Optometrists	
Osteopaths and chiropractors	Clerical Occupations
Pharmacists	Bookkeepers and cashiers
Medical and dental technicians (inc. X-ray technicians)	Office appliance operators
Other health professionals	Stock clerks and storekeepers
Law professionals	Shipping and receiving clerks
Judges and magistrates	Baggagemen and expressmen, transport
Lawyers and notaries	Ticket, station and express agents, transport
Religion professionals	Stenographers
Clergymen and priests — not otherwise reported	Typists and clerk-typists
Nuns and brothers — not otherwise reported	Attendants, doctors' and dentists' offices
Religious workers, n.e.s.	Clerical occupations, n.e.s. (inc. bill collectors and office boys)
Artists, writers and musicians	
Artists, commercial	Sales Occupations
	Foremen, trade
	Auctioneers

Canvassers and other door-to-door salesmen
 Hawkers and peddlers
 Commercial travellers
 Newsvendors
 Service station attendants
 Sales clerks
 Advertising salesmen and agents
 Insurance salesmen and agents
 Real estate salesmen and agents
 Security salesmen and brokers
 Brokers, agents and appraisers, n.e.s.
 Other sales occupations

Service and Recreation Occupations

Protective service occupations
 Firemen, fire protection
 Policemen and detectives
 Guards, watchmen, n.e.s.
 Commissioned officers, armed forces
 Other ranks, armed forces
 Housekeepers, waiters, cooks and related workers
 Lodging and boarding-house keepers
 Housekeepers (excl. private household) matrons, stewards
 Cooks
 Bartenders
 Waiters
 Nursing assistants and aides (inc. practical nurses)
 Porters, baggage and pullman
 Baby sitters
 Maids and related service workers, n.e.s.
 Athletes, entertainers and related workers
 Actors, entertainers and showmen
 Athletes and sports officials (inc. instructors)

Other service occupations
 Barbers, hairdressers, manicurists
 Launderers and dry cleaners
 Elevator tenders, building
 Janitors and cleaners, building
 Undertakers and embalmers
 Guides
 Attendants, recreation and amusement (inc. ushers)
 Service workers, n.e.s.

Transport and Communication Occupations

Supervisors of transport operations
 Inspectors and foremen (inc. dispatchers and controllers)
 Operators, aircraft
 Air pilots, navigators and flight engineers
 Operators, railroad
 Locomotive engineers
 Locomotive firemen
 Conductors, railroad
 Brakemen, railroad
 Switchmen and signalmen
 Operators, water transport
 Deck officers, ship
 Engineering officers, ship
 Barge crews and boatmen
 Seamen, firemen, oilers, ship
 Operators, road transport
 Bus drivers
 Taxi drivers and chauffeurs
 Driver-salesmen
 Truck drivers
 Other transport occupations
 Operators, electric street railway
 Teamsters
 Transport occupations, n.e.s. (inc. canal men, lockkeepers, canal attendants)

Supervisors of communication operations

Inspectors and foremen, communication

Other communication occupations

Radio and television announcers

Radio and television equipment operators

Telephone operators

Telegraph operators

Postmen and mail carriers

Messengers

Farmers and Farm Workers

Farmers and stockraisers

Farm managers and foremen

Farm labourers

Gardeners (ex. farm) and groundskeepers

Other agricultural occupations

Loggers and Related Workers

Logging foremen

Foresters, rangers and cruisers

Lumbermen, including labourers in logging

Fishermen, Trappers and Hunters

Fishermen

Trappers and hunters

Miners, Quarrymen and Related Workers

Foremen — mine, quarry, oil well

Prospectors

Timbermen

Miners, n.e.s.

Millmen

Well drillers and related workers

Labourers, mine

Miners, quarrymen and related workers, n.e.s.

Craftsmen, Production Process and Related Workers

(unless otherwise specified apprentices are included with the relevant occupation; foreman are included with the relevant occupation where possible, otherwise to Foreman, n.e.s.)

Millers, bakers, brewers and related food workers

Millers of flour and grain

Bakers

Butchers and meat cutters

Meat canners, curers, packers

Fish canners, curers, packers

Fruit and vegetable canners and packers

Milk processors

Other food processing occupations

Beverage processors

Tire builders, vulcanizers and other rubber workers

Tire and tube builders

Vulcanizers

Other rubber workers

Leather cutters, lasters, sewers and other leather workers (except glove and garment)

Leather cutters

Shoemakers and repairers — factory, n.e.s.

Shoemakers and repairers — not in factory

Other leather product makers

Spinners, weavers, knitters and related workers

Carders, combers and other fibre preparers

Spinners and twistors

- Winders, reelers
- Weavers
- Loom fixers and loom preparers
- Knitters
- Bleachers and dyers — textile
- Finishers and calenderers
- Other textile occupations
- Tailors, furriers, upholsterers and related workers
- Tailors and tailoresses
- Dressmakers and seamstresses, n.i.f.
- Furriers
- Milliners; hat and cap makers
- Cutters, markers — textiles; garment and glove leather
- Sewers and sewing machine operators, n.e.s.
- Upholsterers
- Apparel and related products makers, n.e.s.
- Carpenters, cabinetmakers, sawyers and related workers
- Carpenters
- Cabinet and furniture makers
- Sawyers
- Woodworking machine operators, n.e.s.
- Inspectors, graders, scalers — wood
- Woodworking occupations, n.e.s. (inc. wood furniture finishers)
- Paper makers, still operators, chemical and related workers
- Batch and continuous still operators
- Roasters, cookers and other heat treaters, chemical
- Cellulose pulp preparers, n.e.s.
- Paper makers
- Paper making occupations, n.e.s.
- Crushers, millers, calenderers, chemical, n.e.s.
- Chemical and related process workers, n.e.s.
- Printers, bookbinders and related workers
- Compositors and typesetters
- Pressmen, printing
- Lithographic and photo-offset occupations
- Photoengravers, (inc. photogravure workers)
- Bookbinders
- Other occupations in bookbinding
- Printing workers, n.e.s.
- Furnacemen, moulders, blacksmiths and related metal workers
- Furnacemen and heaters, metal
- Heat treaters, annealers, temperers
- Rolling mill operators
- Blacksmiths, hammermen, forgemen
- Moulders
- Coremakers
- Metal drawers and extruders
- Metal treating occupations, n.e.s.
- Jewellers, watchmakers and engravers
- Jewellers and watchmakers
- Engravers except photoengravers
- Machinists, plumbers, sheet metal workers and related workers
- Toolmakers, diemakers
- Machinists and machine tool setters
- Filers, grinders, sharpeners
- Millwrights
- Fitters and assemblers, n.e.s. metal
- Metalworking machine operators, n.e.s.
- Plumbers and pipefitters
- Sheet metal workers

- Riveters and rivet heaters
- Boilermakers, platers and structural metal workers
- Electroplaters, dip platers and related workers
- Welders and flame cutters
- Polishers and buffers, metal
- Metalworking occupations, n.e.s.
- Mechanics and repairmen, except electrical and electronic
 - Mechanics and repairmen, aircraft
 - Mechanics and repairmen, motor vehicle
 - Mechanics and repairmen, office machine
 - Mechanics and repairmen, railroad equipment
 - Mechanics and repairmen, n.e.s.
- Electricians and related electrical and electronics workers
 - Electricians, wiremen and electrical repairmen
 - Fitters and assemblers — electrical and electronics equipment
 - Power station operators
 - Mechanics and repairmen, radio and television (inc. radio-television electronic technician in retail trade)
- Projectionists, motion picture
- Linemen and servicemen — telephone, telegraph and power
- Electrical and electronics workers, n.e.s.
- Painters, paperhangers and glaziers
 - Painters (construction and maintenance), paperhangers and glaziers
- Painters except construction and maintenance
- Bricklayers, plasterers and construction workers, n.e.s.
- General foreman construction
- Inspectors — construction
- Bricklayers, stonemasons, tilesetters
- Cement and concrete finishers
- Plasterers and lathers
- Insulation appliers
- Construction workers, n.e.s.
- Clay, glass and stone workers
 - Lens grinders and polishers; opticians
 - Furnacemen and kilnmen, ceramics and glass
 - Stone cutters and dressers
 - Clay, glass and stone workers, n.e.s.
- Stationary engine and excavating and lifting equipment operators and related workers
 - Boiler firemen (ex. ship)
 - Stationary enginemen
 - Motormen (vehicle) except railway
 - Hoistmen, cranemen, derrickmen
 - Riggers and cable splicers, except telephone, telegraph and power
 - Operators of earth-moving and other construction machinery, n.e.s.
 - Materials-handling equipment operators
 - Oilers and greasers — machinery and vehicles (ex. ships)
- Longshoremen and other freight handlers
 - Longshoremen and stevedores
 - Warehousemen and freight handlers n.e.s.
- Sectionmen and trackmen

Other production process and related occupations

Foremen, n.e.s.

- Food and beverage industries
- Textile and clothing industries
- Wood and furniture industries
- Paper and allied industries
- Primary metal industries
- Transportation equipment industries
- Other manufacturing industries
- Electric power, gas and water utilities
- Other industries (inc. not reported)

Tobacco preparers and product makers

Patternmakers (ex. paper)

Bottlers, wrappers, labelers

Paper products makers

Photographic processing occupations

Tanners and tannery operatives

Inspectors, examiners, gaugers, n.e.s., metal

Inspectors, graders and samplers, n.e.s.

Production process and related workers, n.e.s.

LABOURERS not elsewhere classified

(includes labourers in all industries but excludes those engaged in agricultural, logging, fishing and mining operations)

Labourers

Manufacturing

- Food and beverage industries
- Textile and clothing industries (ind. 183-249)
- Wood industries
- Paper and allied industries
- Primary metal industries
- Transportation equipment industries
- Other manufacturing industries

Construction

Transportation, communication and other utilities

Railway transport

Transportation, except railway

Communication and storage

Electric power, gas and water utilities

Trade

Public administration and defence

Local administration

Other industries (inc. not reported)

OCCUPATION NOT STATED

Occupation not stated

Appendix B

RELATIONSHIP OF INCOME DISTRIBUTION ESTIMATES TO NATIONAL ACCOUNTS

ESTIMATES OF PERSONAL INCOME

The DBS publishes quarterly and annually official estimates of Gross National Product and of personal income. The Gross National Product measures the nation's output of goods and services in terms of its market value. Personal income is the current income received by the personal sector from all sources.

A widely held misconception is that personal income is equivalent to the money income received by what might be designated as the household sector of the economy. As a result it is assumed that incomes assessable for income tax purposes or incomes measured in the income size distributions analyzed in this report are equivalent to "personal income" as defined for national accounting purposes. In fact, taxable income or money income as defined for purposes of Canadian income surveys or census statistics comprises only part of personal income (income surveys are described in Appendix C). There are no published reports or summaries which make available, for Canada, the detailed components which comprise personal income aggregates; and thus it is not readily possible for users of income statistics to reconcile income series such as the census series with National Accounts components.

To facilitate comparisons of census data with National Accounts it may be useful to analyze the conceptual basis of the personal income estimates for Canada, the similarities and differences between these estimates and the census income series and the consistency between census data and National Accounts estimates.

1. Personal Income Concepts in the National Accounts

Personal income measures the income not only of individuals but also of unincorporated business, the income derived from professional practices and the net income received from farming operations. In addition, it includes the income of certain non-profit institutions (such as insurance companies and hospitals), and of private pension plans and private trust funds. Such institutions are considered to be associations of individuals. Further, the income measured consists of earnings received as supplementary income in the form of certain fringe benefits, income in kind and imputed income as well as cash income or money income. Examples of

income in kind are free room and board received in addition to cash wages, or food produced and consumed at home by farm families. Examples of imputed income are services provided to customers by financial intermediaries for which no charge is levied as, for example, services rendered by banks to depositors.

To illustrate the significance of money income, income in kind and imputed income, personal income for the year 1961 is analyzed in Table B.1. The table on personal income in the annual National Accounts appears in this form:

TABLE B.1—Personal Income, by Source, 1961^a

Source	Amount
	\$'000,000
1. Wages, salaries and supplementary labour income	
(a) From business	15,043
(b) From governments	3,044
(c) From persons.	902
(d) Deduct employer and employee contributions to social insurance and government pension funds.	-787
2. Military pay and allowances	550
3. Net income received by farm operators from farm production	978
4. Net income of non-farm unincorporated business.	2,274
5. Interest, dividends and net rental income of persons	3,024
6. Transfer payments (excluding interest)	
(a) From governments.	3,425
(b) Charitable contributions from corporations	40
Total	28,493

^aSince these comparisons were made some revisions have been made to the 1961 estimates of personal income. The revised estimate is \$28,522 million. The most significant change was an upward revision of \$16 million to government transfer payments. This revision affected the estimate of provincial grants to private non-commercial institutions.

SOURCE: DBS, *National Accounts, Income and Expenditure, 1963*, Table 7.

As the above table indicates there are six major components of personal income. The concepts are discussed below along with an 'explanation of the conceptual treatment of these items in DBS family and individual income statistics.

Wages, Salaries and Supplementary Labour Income

Wages, salaries and supplementary labour income consist of two basic elements: gross cash wages and salaries received by employees (that is, gross before deductions for income tax, pension funds, unemployment insurance and similar deductions) and supplementary labour income. Supplementary labour income comprises payments made by employers on behalf of their employees in order to provide them with future benefits. Specifically these payments include employers' contributions to employee welfare and pension funds, to workmen's compensation and industrial vacation funds, and to the unemployment insurance fund.

In 1961, wages, salaries and supplementary labour income consisted of: wages and salaries, \$18,169 million; supplementary labour income, \$820 million.

As Table B.1 indicates, adjustments are made to gross labour income to subtract out employer and employee contributions to social insurance and government pension funds. Receipts from social insurance and government pension fund payments to persons are components of government transfer payments (item 6) and will be discussed below. The components of employer and employee contributions are given in Table B.2.

TABLE B.2—Employer and Employee Contributions to Social Insurance and Government Pension Funds, 1961

Contribution	Amount
	\$'000,000
Federal—	
Public service pensions	233
Unemployment insurance	277
Total	510
Provincial—	
Public service pensions	114
Workmen's compensation	118
Industrial employees vacations	19
Total	251
Municipal—	
Public service pensions	26
Total	787

SOURCE: DBS, *National Accounts, Income and Expenditure, 1963*, Table 42.

The main items netted out are employer and employee contributions to workmen's compensation, to unemployment insurance and to pension funds covering employees of the various levels of government. In the National Accounts the treatment of contributions to pension funds made by the three levels of government and their employees in connection with the employment of civil servants differs from the treatment of pension funds set up by private employers. Employer and employee contributions to public service pensions are subtracted from gross wages and salaries in the year in which contributions are made. Out-payments of pensions to retired government employees are included in government transfer payments in the year in which such pensions are paid.

It should be noted that employees do not contribute to workmen's compensation or the industrial employees vacation fund; these are entirely employer contributions.

Contributions of private employers to pension funds on behalf of their employees are an element of supplementary labour income in the year in which employers make such contributions. In addition, included in investment income is

the investment income of private pension funds during the year. Thus, personal income does not measure the receipts of pensions by individuals from former employers in the private sector but rather the net addition to pension funds as a result of current employer contributions and of earnings on accumulated contributions.

In summary, net labour income as compiled from estimates of personal income in 1961 was \$18,202 million. Wages and salaries as measured in the Census and Surveys of Consumer Finances would be \$18,169 million.

The differences between the National Accounts conceptual treatment and the method of measurement of wage and salary income in the census statistics and in the Surveys of Consumer Finances are: (1) the income distributions measure only receipts of wages and salaries and exclude supplementary labour income; (2) no adjustment is made in these statistics equivalent to the adjustment employer and employee contributions to social insurance and government pension funds although receipts of unemployment insurance, workmen's compensation and pensions are included as components of total money income; and (3) in census and survey statistics no distinction is made in respect as between public service pensions and pensions from private employers. That is, no adjustment is made for contributions to pension funds while persons are working but receipts of pensions whether public or private are considered to be income at the time of receipt.

Adherence to National Accounts concepts in estimating income distributions would result in some instances in higher levels of income than in the present estimates while in other instances the level of income would be lower. For example, if census data for 1961 had been consistent with the Accounts treatment of contributions to the unemployment insurance fund aggregate money income would have been theoretically approximately \$150 million dollars lower in aggregate as contributions to the fund exceeded outpayments by this amount. On the other hand, if the census had been consistent with the Accounts treatment of pension income, census income estimates would theoretically have shown higher levels of income since employer contributions to pension funds plus the earnings of pension funds currently exceed out-payments of employee pension funds.

Consistency with the National Accounts conceptual treatment of pension income would have implications for the relative income distribution. Employer contributions to pension funds are made on behalf of the covered population of working age and the covered population of working age has the greatest claim on the investment income accruing to pension funds.

Adherence to National Accounts would result in a higher income distribution for the population of working age and a lower income distribution for the population in retirement.

Military Pay and Allowances

Military pay and allowances consist of both cash military pay and allowances and income in kind such as clothing issued by the armed forces. In 1961, the composition of military pay and allowances was: military pay, \$523 million; and income in kind — food and clothing, \$27 million.

Military personnel resident in private dwellings in Canada were included in the 1961 Census statistics on income although military personnel are not included in the income estimates derived from the Surveys of Consumer Finances which are discussed in Chapters Ten and Eleven. In 1961, the armed forces consisted of 121,000 persons; the estimated number enumerated for complete income data on the census was approximately 68,000 or just under 60 per cent of the total number.

Net Income Received by Farm Operators from Farm Production

The National Accounts measure the net income from current production. This is derived by estimating gross income and deducting expenses. Gross income consists of gross cash income from the sale of farm products plus supplementary payments, income in kind such as food and fuel produced on the farm and the value of inventory change. To arrive at net income, farm operating expenses and depreciation are deducted from gross income.

Respondents to the census questionnaire were asked to exclude all net income received from farming operations so that census estimates exclude farm income as a component even though some farm operators were enumerated.

Net Income of Non-Farm Unincorporated Business

This is the net income, both monetary earnings and income in kind of sole proprietorship and business partnerships and of professional practices carried on by doctors, lawyers and so forth. Included here, as well, is the net income derived from roomers and boarders. No separate estimates exist as to how much income in kind may be received by business proprietors. In 1961, of the total estimated net income of \$2,274 million, net income from roomers and boarders was estimated at \$206 million.

The census questionnaire on net income from self-employment was restricted to net income from self-employment, exclusive of net income from roomers and boarders or, a total of \$2,068 million of the National Accounts estimate of \$2,274 million. Net income from roomers and boarders was to be reported under miscellaneous sources of income. The Surveys of Consumer Finances also differentiate between net income from a business or professional practice and income from roomers and boarders by asking separate questions on these sources.

Interest, Dividends and Net Rental Income of Persons

The greatest differentials between components of income distributions series and National Accounts components exist in respect to the components of investment income. The major components of the National Accounts series for 1961 are summarized in Table B.3.

TABLE B.3—Interest, Dividends and Net Rental Income of Persons, 1961

Income	Amount
	\$'000,000
1. Interest received by individuals from deposits, bonds and mortgages—	
(a) Cash interest from bank deposits and bonds	665
(b) Other cash interest	478
(c) Imputed interest	183
2. Dividends received from stocks	491
3. Rents and royalties—	
(a) Cash rents.	290
(b) Imputed rents	409
(c) Royalties	38
4. Investment income of life insurance companies, fraternal societies and industrial pension plans and profits of non-life mutuals	583
5. Interest credited to government annuities fund	46
6. Less interest on consumer debt	-159
Total	3,024

SOURCE: Unpublished DBS data.

Only items 1(a) and (b), 2, and 3(a) and (c) are measured in income distributions and no adjustment is made for interest on consumer debt. The total of these items is \$1,962 million or nearly two thirds of interest, dividends and net rental income of persons. Of the income not measured in the income distribution approximately \$592 million consisted of imputed incomes (items 1(c) and 3(b) and \$629 million is income accruing to life insurance companies, fraternal societies, industrial pension funds and interest credited to the government annuities fund. Some element of insurance company payments to policyholders may be included in income distribution statistics. Respondents were directed to report receipts of annuities some of which may be received from insurance companies or the government annuities fund but not to report lump-sum receipts from insurance policies.

Transfer Payments from Government

Some of the above items would not be included in the census statistics for conceptual or other reasons. The items not included are: re-establishment credits and rehabilitation benefits (items 2 and 3), \$3 million; Prairie Farm Assistance Act

APPENDIX B

payments (item 7), \$35 million; federal grants to universities (item 10), \$16 million; provincial grants to private non-commercial institutions (item 18), \$935 million; and municipal grants to private non-commercial institutions (item 22), \$24 million. Re-establishment credits and rehabilitation benefits are expenditures on behalf of war veterans. Prairie Farm Assistance Act payments would not be reported because farm households were not sampled and the other categories are transfer payments to institutions, not to persons. The total of these exclusions is \$1,013 million or 29 per cent of government transfer payments included in personal income. The largest of the above items, provincial grants, are primarily provincial grants to hospitals in connection with hospital insurance.

TABLE B.4—Transfer Payments from Government, 1961

Payment	Amount
	\$ '000,000
Federal—	
1. Family allowances	517
2. Re-establishment credits	2
3. Rehabilitation benefits	1
4. Pensions World War I and II	158
5. War Veterans' allowances	76
6. Unemployment insurance benefits	494
7. Prairie Farm Assistance Act	35
8. Pensions to government employees	66
9. Old age security fund payments	597
10. Grants to universities	16
11. Assistance to immigrants	2
12. Miscellaneous	42
Total	2,006
Provincial—	
13. Direct relief	33
14. Workmen's compensation benefits	94
15. Old age and blind pensions	83
16. Mothers' and disabled persons allowances	73
17. Pensions to government employees	48
18. Grants to private non-commercial institutions	935
19. Miscellaneous	50
Total	1,316
Municipal—	
20. Direct relief	70
21. Pensions to government employees	9
22. Grants to private non-commercial institutions	24
Total	103
Grand total	3,425

SOURCE: DBS, *National Accounts, Income and Expenditure, 1963*, Table 44.

APPENDIX B

Some government expenditures on transfer payments may be expenditures on behalf of recipients or may provide income in kind to recipients rather than cash flows. For some items in the National Accounts, a separation between the income in kind and cash components is impossible. Transfer payments of this mixed type are: mothers' and disabled persons allowances (item 16), and direct relief (items 13 and 20). There may also be some element of income in kind in the form of expenditures on medical care in two other categories of transfer payments — workmen's compensation (item 14) and war veterans' allowances (item 5). Mothers' allowances and relief payments totalled \$176 million and workmen's compensation and war veterans' allowance payments amounted to \$170 million.

Miscellaneous government transfer payments (items 12 and 19), which total \$92 million, are also a mixture of direct payments to persons, as for example, scholarships and Canada Council grants and expenditures on behalf of persons, as for example, medical expenditures on the Indian and Eskimo population. Possibly only one third to one half of the total represents direct payments to persons.

The census did not follow the National Accounts treatment of pension income but collected statistics on all receipts of pension income, regardless of source. Pension payments by the various levels of government (items 8, 17 and 21) were reported under pension income on the census questionnaire rather than under government payments. The census collected data on receipts of family allowances, old age security and assistance payments and other government payments. The latter would consist of war veterans' allowances, unemployment insurance benefits, assistance to immigrants, part of the miscellaneous payments, part of the direct relief expenditures, workmen's compensation and mothers' allowances. Of the total transfer payments of \$3,425 million, only \$2,412 million, or 70 per cent are wholly or partially measured in the census statistics.

Charitable Contributions from Corporations

This item of \$40 million consists of corporate donations to universities, charitable organizations and so forth and so is not a component of income distribution statistics.

Personal Income Adjusted to Census Concepts

The components of personal income in 1961 which approximate components of money income in the 1961 Census statistics are summarized in Table B.5.

As Table B.5 indicates, adjustments for conceptual differences and for the exclusion of farm income in the census sample result in an aggregate money income total of \$25,340 million as compared with a personal income of \$28,493 in 1961.

TABLE B.5—Adjusted Personal Income, 1961

Item	Amount
	\$'000,000
Wages and salaries	18,169
Military pay	523
Net income of non-farm unincorporated business (excluding income from roomers and boarders)	2,068
Net income from roomers and boarders ^a	206
Interest, dividends and net rental income of persons	1,962
Transfer payments from governments—	
Family allowances	517
Old age pensions and old age assistance ^b	676
Pensions to government employees ^c	123
Other direct cash payments	828
Other transfer payments partially paid directly to persons	268
Total	25,340

^aReported under miscellaneous income on census questionnaire.

^bAdjusted to remove pensions to the blind, receipts of which were reported with other government payments.

^cCensus questionnaire collected data on all pensions received as a result of previous employment.

SOURCE: See preceding discussion.

Because the census enumeration was on June 1, 1961 Census data are not on a calendar year basis. Respondents were asked to report income for the 12 months preceding the census or alternatively income for the year 1961. It is more appropriate to compare census data to personal income estimates for the year ending June 30, 1961. Personal income estimates are available on a quarterly but not on a monthly basis, so that it is not possible to match the census period precisely. After adjustment for conceptual and other differences, personal income for the twelve months ending June 30, 1961 is shown in Table B.6 along with the comparable census estimates.

2. Comparisons of National Accounts and Census Income Statistics

Wages and Salaries

Wages and salaries as estimated for the non-farm population were \$17,166 million. The sample estimates do not include wages and salaries received by persons resident on farms and would also exclude wages and salaries earned by persons who reside in collective dwellings and institutions, or who may have left the country or died. Although it is not possible to estimate total wages and salaries accruing to all of these groups, it is possible to estimate the major part of wages and salaries accruing to farm households from data on wages and salaries collected on the main questionnaire. Aggregate wages and salaries earned by wage-earners resident on farms was \$407 million while another \$40 million was reported by farm

operators — in total, \$447 million. This, added to wages and salaries reported on the sample, yields a total estimate of \$17,613 million or 99.4 per cent of the corresponding National Accounts estimate. Since the estimates derived from the census do not include all recipients of wages and salaries, the census estimates show a remarkable degree of agreement with national income estimates.

**TABLE B.6—Comparisons of Census Income Estimates, Year Ended June 1, 1961
with National Accounts Personal Income Estimates, Year Ended June 30, 1961**

Item	National Accounts	Census ^a	Ratio Census to Accounts
	\$'000,000	\$'000,000	\$'000,000
Wages and salaries	17,711	—	—
Less wages and salaries of farm population ^b . . .	-447	—	—
Non-farm wages and salaries	17,264	17,166	99.4
Military pay	503	—	—
Less military pay of armed forces not in sample .	-189	—	—
Military pay of armed forces resident in private households	314	314	100.0
Net income of unincorporated business (excluding income from roomers and boarders)	1,999	2,393	119.7
Interest, dividends and net rental income of persons .	1,812	1,082	59.7
Bond and bank interest and dividends	1,014	511	50.4
Other investment income	798	571	71.6
Adjusted government transfer payments	2,066	1,434	69.5
Family allowances	510	—	—
Less payments to farm families ^c	-87	—	—
Family allowances paid to non-farm population	423	437	103.3
Old age pensions and old age assistance	671	—	—
Less payments to population 70 and over resident on farms and in institutions ^c	-110	—	—
Adjusted old age pension payments	561	500	89.1
Other government payments	1,082	497	49.1
Retirement pensions	117	261	223.1
Miscellaneous (including net income from roomers and boarders)	205	151	73.7
Total	23,777	22,801	95.9

^aEstimates derived for the non-farm population resident in private households.

^bEstimated from census statistics for the total labour force.

^cEstimated from population statistics on the age distribution.

SOURCE: National Accounts estimates adjusted by unpublished data. Census estimates published in DBS, 1961, Census of Canada, *Incomes of Individuals* (Cat. No. 98-525).

Military Pay and Allowances

The National Accounts estimate is \$503 million while the census estimate is \$314 or 62 per cent of the National Accounts total. As already indicated, the census

sample included only some 60 per cent of military personnel so that differences between the two estimates can be attributed entirely to the partial coverage of the census.

Net Income of Unincorporated Business

The estimated census total of \$2,393 million is some 20 per cent higher than the official National Accounts estimate of \$1,999 million. There are a number of possible explanations as to why census estimates may be substantially higher. There is some evidence that respondents operating businesses may have reported gross earnings rather than net income, but a more important factor may be the difficulty of enumerating proprietors of private companies in such a way that their reporting of income is consistent with National Accounts concepts. In the National Accounts net income from business includes only net income earned from operating an unincorporated business. If a business proprietor incorporates a business then his withdrawals should be reported as wages and salaries earned and any dividends paid by the company should be reported as investment income.

Experience with the Surveys of Consumer Finances and some investigation of census reporting suggests that, where proprietors incorporate their businesses and where they are the major owners, in their own view they are self-employed and the income derived from the business is considered to be business income rather than wages and salaries. As a result, census statistics in aggregate probably overstate the number of self-employed business proprietors and understate the number of wage-earners and correspondingly overstate the amount of income earned from a business and understate wages and salaries and dividend income. The higher census figure may be the result of a misclassification of income reported on the census and a more correct reporting by business proprietors would have resulted in census figures which would be in closer agreement with National Accounts totals.

Interest, Dividends and Net Rental Income

Estimated bond and bank interest and dividend receipts in the National Accounts were \$1,014 million while in the census the total was \$515 million or 50 per cent of the National Accounts estimate. One possible reason for under-statement of this item was discussed above — the reporting of dividend or other investment income from a privately owned business as net income from self-employment. Some of the differential is also due to the exclusion of some sectors of the population from the estimates. Another part of the difference may be due to reporting errors either by an inaccurate reporting of receipts or the non-reporting of receipts. Many individuals may not have as complete records in respect to receipts of investment income as they do in respect to earned income such as wages and salaries where employers usually supply statements of earnings. Experience with censuses and surveys suggests that investment income is usually the income source least satisfactorily reported on enumeration. In some cases the under-representation of investment income may result from under-enumeration of

higher income groups. An examination of the 1961 Census sample indicates that there is little evidence of such under-enumeration and even the very high incomes appear to be adequately represented in the sample. Under-reporting of income by respondents may be a more probable explanation of differences. The difference between National Accounts estimates of aggregate investment income and census estimates averages less than \$100 per income recipient in 1961. Non-reporting of small receipts by a substantial proportion of income recipients could account for much of the discrepancy.

Estimated receipts of other types of investment income were \$798 million in the personal income series and \$568 million or 71 per cent in census statistics. In total, investment income reported on the census was 59 per cent of National Accounts estimates.

Transfer Payments from Governments

Total family allowance payments paid nationally during the year were \$510 million. The amount of family allowances paid to families resident on farms can be approximated from statistics on the age distribution of children. The estimated payments to farm families are \$87 million. Estimates of receipts by the non-farm population are \$438 million or 104 per cent of the total payments after adjustment for farm families. It is possible that the estimated farm receipts may be too high.

The total of old age payments and old age assistance according to personal income estimates was \$671 million. The receipts reported by the non-farm population on the census were \$500 million. The census income estimates exclude 174,000 persons aged 70 and over. The estimated pension receipts of this population would be \$110 million. The census estimate is thus 89 per cent of the adjusted National Accounts estimate. Some of the old age assistance payments to the population aged 65 to 69 would be paid to persons resident on farms or in institutions and it is not possible to estimate the amount of such payments to this population. Some of the pension payments would have been made to persons who died during the year preceding the census; such payments would probably amount to a minimum of \$20 million.

In summary, aggregate family allowance and old age pension receipts in the census agree closely with the official statistics on payments. These are regular receipts payable in a fixed amount. Respondents have little difficulty in recalling the amount received and so reporting is accurate.

Comparisons of the aggregate receipts of other transfer payments indicate greater discrepancies between census and National Accounts estimates. The personal income estimate is \$1,082 million, some of which may consist of government expenditures on behalf of persons rather than direct payments to persons. There is no information on the amount of such payments. Further, some of these transfer payments would accrue to the farm population and to population resident in institutions or collective dwellings. The amount of such payments

cannot be estimated. Census estimates of all the transfer payments receipts was \$497 million or 49 per cent of the relevant National Accounts total.

For all transfer payments (exclusive of pensions to government employees) the census aggregate of \$1,434 million is 69.5 per cent of the adjusted personal income total of \$2,066 million.

Retirement Pensions and Miscellaneous Income

Census statistics asked respondents to report all receipts of pensions from former employers while personal income only measures pension payments to retired government employees. The aggregate pension income reported on the census was \$261 million. The amount of pensions paid to retired government employees according to the National Accounts was \$117 million.

Income from roomers and boarders was reported under miscellaneous income on the questionnaire. Respondents were also asked to include alimony, annuities and other sources of income such as periodic contributions for support from persons who do not reside in the same household. The amount of miscellaneous income reported on the census was \$151 million; the estimated amount of net income from roomers and boarders was \$205 million. This suggests that there may not have been satisfactory reporting of small, miscellaneous income receipts on the census.

Appendix C

EVALUATION OF INCOME DATA

1. Errors and Biases in Census Income Statistics

Statistics collected through sample surveys or censuses usually contain errors or biases for a variety of reasons. Where data are collected from a sample rather than the complete universe the resulting estimates are subject to sampling variability. The statistics collected are also subject to response errors and may contain processing errors.

The census income statistics were collected from a 20 per cent sample of non-farm households. In enumerating the census, enumerators were instructed to list all households in their enumeration areas in sequence as they were found; the starting point for enumeration of an area was specified in advance. Each fifth household starting with the third household listed was designated as a sample household; each person aged 15 and over in non-farm households was asked to answer questions on migration and, in non-farm households, to complete an income questionnaire.

In total, 2,330,159 persons aged 15 and over resided in sample households; the number of sample questionnaires returned was 2,252,600. For the sample questionnaire, if no questionnaires were returned individuals were not forced to complete the information, unlike the main questionnaire for which enumeration was compulsory. Of the sample questionnaires returned, 35,734 questionnaires could not be matched to the main census documents while 8,009 questionnaires were duplicates so that approximately 2,200,000 sample questionnaires were collected. For some 200,000 persons some or all of the income data were assigned because questionnaires were incomplete. In summary, for 3.3 per cent of the 20 per cent sample, questionnaires were not obtained, and for 1.9 per cent of the sample, questionnaires could not be used so that for five per cent of the sample there were no questionnaires. Assignments of income were made for these cases as well as for persons returning blank or incomplete questionnaires. In total, complete or partial assignment was necessary for 11 per cent of the original sample.

A follow-up was made in the Province of Quebec in a number of enumeration areas where substantial numbers of sample questionnaires were not returned to determine why questionnaires had not been collected. Experienced labour force survey enumerators were used to visit households and interview household members as to why their questionnaires were missing. In nearly 60 per cent of cases the reasons for non-completion of questionnaires were enumerator negligence and enumerator misunderstanding of instructions. The income questionnaire was a drop-off questionnaire for self-enumeration, enumerators to return to collect

the questionnaires later. The follow-up showed that in many instances enumerators left questionnaires but did not return for them or neglected to distribute questionnaires. Misunderstanding occurred because some enumerators did not follow the instruction that the questionnaires were to be completed by all persons whether or not they had an income and thus neglected to obtain questionnaires from some members of the household such as wives and children who were students. In only 10 per cent of cases had the respondents refused to answer the questions; the other 30 per cent of questionnaires were not returned because householders were absent, ill, had language difficulties, had moved, and so forth.

For incomplete income records assignments, computer assignments were made using selected characteristics for assigning. If the individual did not work during the year it was assumed there was no employment income and only unearned income was assigned using the last completed record of a person of the same sex with no employment record. For members of the labour force the assignment was made from the previous record processed of persons who were of the same sex and occupational category. An examination was made of a sample of records which required assignment. The majority of these consisted of questionnaires of housewives and children still attending school and in the majority of cases these were assigned zero incomes. The examination suggested that these were not refusals but cases where no income was received and where respondents probably considered that it was not necessary for them to complete the questionnaires. Thus, of the 11 per cent of whom incomes were assigned, a positive amount of income was assigned for only less than half of the cases. A major reason, then, for blank questionnaires and the non-return of questionnaires appeared to be an impression that, where no income was received, nothing had to be reported.

Response Errors

Completion of a questionnaire is no assurance that data are reliably reported. Respondents may report receipts inaccurately, may not report all receipts of income or may include as income cash flows which are not, in fact, income. If data are reported from memory rather than from records, receipts may be estimated or small receipts may be overlooked. In some cases replies may have been provided by persons other than the person for whom the questionnaire was intended. Enumerators were instructed that on the sample questionnaire respondents were to complete all questions on income by self-enumeration. One question, that of wages and salaries, also appeared on the main census questionnaire which was completed by the enumerator. It is probable that the wage and salary data on the main questionnaire were often secured from secondary sources rather than the person directly concerned, and the intention was that on the sample there should be direct reporting to improve accuracy and, as a subsidiary purpose, to compare answers obtained for the same questions where enumerating techniques were varied. A substantial proportion of enumerators disregarded instructions and transcribed the wages and salaries reported from the main questionnaire to the sample so that respondents were only asked to complete the remaining questions.

APPENDIX C

Editing experience suggested that in some instances over-statements of earnings occurred as well as under-statements. Some workers, for example, entered earnings under wages and salaries as well as net income from self-employment. Where entries were identical it was assumed that one of the entries was incorrect and the entry that did not agree with the class of worker status was edited out. Where entries differed the entries were left in, although it appeared in some cases that gross wages and salaries were reported under wages and salaries and net wages and salaries were reported under net earnings from self-employment. Among the self-employed there was evidence to suggest that some self-employed reported gross revenue from their business rather than net income. Entries reported were not accepted in some cases where the amount reported, the nature of business and the locality were such that it was unlikely that the amount reported was net income. Special tabulations from taxation statistics by locality were used as the basis of editing decisions. However, editing checks were only made on large entries so that it is possible that gross receipts may have been reported for smaller businesses and not detected. These errors may be partial explanations as to why the census produced a much higher estimate of net income from self-employment than the National Accounts estimate. The previous section on the reconciliation of the census statistics and the National Accounts has already commented upon the misclassification of the income sources of the proprietors of private corporations as another possible reason for a high estimate of incomes from self-employment.

Comparisons of the number of persons with incomes above \$10,000 with taxation statistics for the years 1960 and 1961 shows that the census estimate of the number of persons with incomes above \$10,000 is higher than the number of taxpayers with incomes above this level. Some of this difference may be accounted for by the broader definition of income on the census but some of the difference may result from an overstatement of earnings on the census. An examination is being carried out of the effect of conceptual differences on the estimated numbers but results are not yet available.

Income tax statistics classify taxpayers by major source of income rather than by occupation. If census statistics by major source of income are compared to taxation statistics for 1960 and 1961 for incomes above \$10,000 the estimated numbers were as follows.

Taxation statistics and the census show considerable agreement on the number of individuals whose income originates in investments and pensions and show the widest discrepancies in the category of employees. Conceptual differences in the definition of income are unlikely to account for the substantial differences shown above, which suggest that reporting errors may have led to an over-statement of the number of high incomes. A comparison of the aggregate incomes of individuals with incomes above \$10,000 is given in Table C.2.

APPENDIX C

TABLE C.1—Number of Persons with Incomes of \$10,000 and Over According to Census and Taxation Statistics, by Major Source, 1960 and 1961

Major source	Census statistics	Taxation statistics	
		1960	1961
	No.	No.	No.
Wages and salaries	125,971	86,917	100,650
Net income from self employment	51,386	36,803	39,552
Investments and pensions	14,714	14,833	16,472
Totals	192,071	138,553	156,674

SOURCE: Census Statistics from DBS, 1961 Census of Canada, *Incomes of Individuals* (Cat. No. 98-501); taxation statistics from *Taxation Statistics 1962* and *Taxation Statistics 1963*.

TABLE C.2—Aggregate Income Reported by Individuals with Incomes of \$10,000 and Over According to Census and Taxation Statistics, by Major Source, 1960 and 1961

Major source	Census statistics 1961	Taxation statistics	
		1960	1961
	\$'000,000	\$'000,000	\$'000,000
Wages and salaries	2,054	1,386	1,577
Net income from self-employment	931	681	739
Investments and pensions	299	351	394
Totals	3,284	2,418	2,710

SOURCE: Unpublished statistics from 1961 Census of Canada, *Taxation Statistics 1962* and *Taxation Statistics 1963*.

Of the \$3,300 million of income reported on the Census, only \$74 million consisted of transfer payments and other income that might not be reported on tax returns. The evidence then is on the side of an over-statement of income on the census for this income group. On surveys and censuses the usual experience is that over-all under-reporting is a more normal feature of the statistics collected and undoubtedly some respondents under-reported incomes. However, it is not possible to reach conclusions as to the net effect. A more intensive comparison of taxation and census data is being carried out in connection with a project to estimate aggregate income by small areas and from this more definite conclusions as to the accuracy of the census data may emerge.

2. Surveys of Consumer Finances

The family income data analyzed in Chapters Ten and Eleven on income trends during the 1950s and income inequality were collected on the DBS Surveys of Consumer Finances which have been carried out periodically since 1952. These surveys are primarily designed to collect financial and related data on families and

individuals. Some of the surveys have been carried out in conjunction with the labour force surveys and have collected income data from sub-samples of labour force households. Other surveys that have collected data on consumer balance sheets as well as income have been separate samples selected within the labour force sampling framework (described in "The Canadian Labour Force Survey", *Canadian Statistical Review*, April 1962).

For Chapters Ten and Eleven the analysis was restricted to data collected only on those surveys taken in conjunction with the labour force, the surveys which collected annual income for the years 1951, 1954, 1957, 1959 and 1961. These surveys consisted of larger samples than the other surveys and provided more data comparable to census statistics than did the other surveys. The income questions were comparable to those on the census and the method of enumeration was also similar; each individual aged 14 and over was asked to complete a questionnaire on sources of income by self-enumeration. Enumerators were instructed to leave questionnaires and to return to pick up the questionnaires after they were completed. A more detailed description of the survey methodology and the questionnaires may be found on the Survey reports. A special publication of historical data for the years 1951 to 1965 will be published in 1968. This report will contain the statistical series used in this monograph along with further data.

The surveys were also restricted to the non-farm population although the definition of non-farm was based upon the major source of income rather than upon the place of residence. The surveys thus exclude fewer family units than the census statistics. The number of family units for whom complete income data were collected was: 1951, 5,600; 1954, 6,500; 1957, 7,700; 1959, 8,700; and 1961, 10,500.

The 1961 statistics are for the calendar year 1961 and so partially overlap the time period covered by the 1961 Census which collected incomes for the 12 months preceding the Census of June 1, 1961. For all trend comparisons, the survey statistics were used rather than the census because of the comparability of sampling procedures, coding and editing procedures, and sample size.

Evaluation of Survey Data

Although the concepts on the surveys are comparable to the census, inconsistencies between survey and census data may exist as a result of other factors. The surveys have very small samples as compared with the census which had a sample of 900,000 family units or a sample which was nearly 100 times the size of the 1961 survey sample and more than 100 times the size of the earlier survey samples. Sampling variability would be much greater in the survey data than in the census. The representation of very high incomes has not been as satisfactory in the surveys as in the census. This is not the result of defects in the survey design but rather the result of the small numbers with high incomes so that an area sample may not pick them up satisfactorily. The existing sampling frame does not make it possible to over-sample high income groups. The surveys usually have been

representative of incomes up to \$50,000; some surveys have contained samples of incomes above this level but some have not. In 1961, taxation statistics show that although numerically very small these taxpayers received some \$300 million in income. Response rates have been lower on the surveys than on the census and no assignment is made for non-response. On the 1961 survey the over-all response rate was 80 per cent, the refusal rate was 12 per cent and eight per cent of the sample did not supply data because of illness, absence from residence and so forth. An analysis of the characteristics of non-respondents suggests that their income levels may not differ significantly from that of respondents. More difficulty is experienced in enumerating unattached individuals, the older age groups, tenants and boarders, and the self-employed than other categories of individuals and families but under-representation of some of these characteristics is compensated for in the weighting of the sample as some of these characteristics are used as weights.

On the positive side, the surveys are carried out by highly trained enumerators, instructions are given in much greater detail and respondents are probably given more thorough explanations as to the survey concepts. All schedules receive intensive editing and the kind of inconsistencies that occurred on the census schedules are likely to result in a rejection of the schedules. For example, on the surveys there has been little evidence of double reporting of earnings or an over-reporting of income from self-employment.

In publishing the results of these surveys the usual procedure is to only publish cross-sectional data showing percentage distributions, average and median incomes rather than number of families and actual aggregates. Because of the sample size and because no annual data exist on the number of economic families by characteristics for weighting purposes it is felt that the weighted numbers of families by characteristics such as family size, age of head and so forth might not be reliable enough to publish. However, an examination of the characteristics of the successive samples suggests that there is great stability of characteristics from survey to survey. The distribution of these characteristics in the 1961 survey sample was also similar to the census distributions.

Although survey data as such are not published in the aggregate, for each of the survey years an income distribution of the incomes of families and unattached individuals based upon the survey and income tax statistics has been estimated and published showing the number of family units and the distribution of aggregate income by income groups. The taxation data have been primarily used to improve the estimates of the aggregate income accruing to upper income groups; the relative distribution of family units by income groups after adjustment show little change as compared to unadjusted survey data. With improvements in the sample design through time the adjustment with taxation data has less effect upon the estimated distribution of aggregate income by income groups than in earlier years. The income shares of families and unattached individuals by quintiles on an unadjusted and adjusted basis are summarized in Table C.3.

**TABLE C.3—Distribution of Income of Families and Unattached
Individuals Among Quintiles, 1961**

Income quintile	Survey estimates	Survey estimates, tax adjusted
	p.c.	p.c.
Lowest quintile	4.2	4.1
Second quintile	11.9	11.4
Third quintile	18.3	17.7
Fourth quintile	24.5	24.9
Highest quintile	41.1	41.7

SOURCE: Unpublished data from Surveys of Consumer Finances.

Table C.4 shows the share of the highest quintile on an unadjusted and adjusted basis for earlier years.

**TABLE C.4—Income Shares of Top Quintile of Families and Unattached Individuals,
Selected Years 1951-1959**

Year	Survey estimates	Survey estimates, tax adjusted
	p.c.	p.c.
1951.	42.8	45.7
1954.	41.8	43.2
1957.	41.4	44.9
1959.	41.6	43.5

SOURCE: Unpublished data from Surveys of Consumer Finances.

Adjustments with taxation statistics, then, do not alter significantly the estimated distribution of income among quintiles, although the shares of the top quintile rise somewhat when adjustments are made for the possible under-coverage of high incomes.

3. Comparability of Survey and Census Statistics

Tables C.5 and C.6 compare the family income distributions obtained on the 1961 Census and the 1961 Survey of Consumer Finances and the average and median family incomes for selected characteristics. In general, median incomes agree more closely than do mean incomes which are almost invariably lower on the 1961 survey than on the census. On the whole, if the sampling variability had been the same, on both series the results from the two sources should probably have shown very similar results. The 1961 survey data referred to the calendar year while the census data are for the 12 months preceding June 1, 1961. Since incomes were rising during this period the levels of income for the majority of families should

have been higher during the survey period than during the census. However, the theoretical coverage of the surveys is greater than the coverage of the census. The survey included family units resident in large lodging houses and other institutions which were excluded from the census and also covered a greater proportion of rural population because farm families were more restrictively defined. Families included on surveys but excluded on the census would have lower levels of incomes than families in both universes. The theoretical net effect of the differences in time periods and universes should possibly have been a somewhat higher level of incomes on the surveys but not significantly so.

**TABLE C.5—Percentage Distribution of Families and Family Income
by Size of Income, 1961 Survey and 1961 Census**

Income group	1961 Survey families	Total income	1961 Census families	Total income
	p.c.	p.c.	p.c.	p.c.
Under \$1,000	3.3	0.3	3.8	0.3
\$ 1,000 – \$1,999	7.9	2.3	7.6	2.0
2,000 – 2,999	10.7	5.0	9.9	4.3
3,000 – 3,999	13.7	9.1	14.4	8.9
4,000 – 4,999	16.6	14.1	16.1	12.6
5,000 – 5,999	15.0	15.5	13.8	13.2
6,000 – 6,999	11.3	13.6	10.1	11.4
7,000 – 7,999	7.0	9.8	7.2	9.3
8,000 – 9,999	7.9	13.1	8.2	12.6
10,000 – 14,999	4.8	10.5	6.3	13.0
15,000 and over	1.7	6.7	2.8	12.4
Totals	100.0	100.0	100.0	100.0
Average income \$	5,317		5,704	
Median income \$	4,866		4,882	
Gini index . . . . .	.310		.346	

SOURCE: DBS, 1961 Census of Canada *Family Incomes* (Cat. No. 98-503) and *Economic Families* Cat. No. 98-524).

In fact, as the tables show, the majority of medians either agreed or differences were such that they could be accounted for by the greater sampling errors inherent in the survey data. On the characteristics examined in these tables, for example, survey medians in most cases were nearly identical with the census or somewhat lower. The census medians were, at most, three per cent higher than the surveys. Where larger differences exist in medians, for example, in the median incomes of families with heads aged 65 and over or of families in the Prairie Provinces, differences in coverage may be partially responsible rather than sampling errors. Average incomes showed much greater differences but these may be exaggerated. As pointed out previously, some over-reporting of earned income may have occurred on the census but there was no evidence that this occurred on the

survey. Some of the discrepancy in the average incomes, then, may reflect some over-estimation of high incomes on the census.

Income shares by quintiles show similar results from both the survey and the census for families and unattached individuals combined but not for families separately. For families and unattached individuals combined on the census the share of the bottom quintile was just over four per cent and the top quintile somewhere between 43.5 and 44.0. The similar survey figures are 4.2 and 41.1. The census statistics on family income show a more unequal distribution than family data. The Gini ratios for the distribution of family income calculated from census data was .346 and from survey data was .310. The quintile share of the upper quintile may be too high in census statistics in view of the probable over-estimation of high incomes and this may result in a higher ratio.

The survey data, then, for the successive years may satisfactorily reflect the income trends through time.

**TABLE C.6—Average and Median Incomes by Selected Family Characteristics,
1961 Survey and 1961 Census**

Item	1961 Survey		1961 Census	
	Average	Median	Average	Median
	\$	\$	\$	\$
Age of head—				
Under 25	4,038	3,895	4,288	4,022
25—34	5,057	4,797	5,261	4,795
35—44	5,737	5,313	6,007	5,215
45—54	5,985	5,400	6,607	5,575
55—64	5,809	4,826	6,177	5,008
65 and over	3,737	2,809	4,428	3,145
Region—				
Atlantic Provinces	4,156	3,591	4,380	3,723
Quebec	5,294	4,652	5,654	4,664
Ontario	5,773	5,389	6,167	5,306
Prairie Provinces	4,836	4,485	5,444	4,747
British Columbia	5,491	5,038	5,778	5,125
Family size—				
2 persons	4,464	3,890	4,732	3,975
3 persons	5,319	4,994	5,561	4,829
4 persons	5,776	5,198	6,104	5,213
5 or more persons	5,728	5,170	6,338	5,291

SOURCE: DBS *Distribution of Non-Farm Incomes in Canada by Size 1961* (Cat. No. 13-521) and 1961 Census of Canada *Economic Families* (Cat. No. 98-524).

4. Constant Dollars Estimates and Quintile Tabulations

The statistics in Chapters Ten and Eleven on the income distribution of family units in constant dollars and quintiles are the survey data not adjusted by taxation

statistics. The constant dollar series and the income distributions by quintiles were obtained by retabulating data obtained on the surveys for the specified years. For constant dollar estimates the consumer price index was used to estimate what equivalent incomes would be in 1961 dollars and the estimated ranges were used to re-run earlier survey data. For the years under consideration, the consumer price indexes as a ratio of the 1961 level were .88 in 1951, .90 in 1954, .94 in 1957 and .98 in 1959. This means, for example, that in 1951 incomes between \$3,520 and \$4,400 were considered to be the equivalent of an income of \$4,000 to \$5,000 in 1961, and this was the range used to approximate the 1961 \$4,000 to \$5,000 range. Such ranges were estimated for each income group used for each year re-tabulated.

The quintile tables were prepared by ranking incomes from the lowest to the highest and dividing the distribution into five equal groups of family units. Some problems exist in the quintile distribution of the lowest quintiles of unattached individuals. Because of the substantial numbers of pensioners who have no income other than the pension, a division by quintiles tends to result in a division of pensioners with identical incomes between the first and second quintiles. In 1961, for example, the pension was \$660 per annum and, if all pensioners with only this for an income had been allocated to the bottom quintile, then more than 20 per cent would have incomes below this level. Because of the flat rate benefit receipts, the older population has an income distribution that bunches at the amount of the annual payment rather than a more normally shaped distribution.

5. Estimates of Tax Incidence

The income statistics used in Chapter Eleven to analyze the redistributive effect on incomes of government policy are the income distributions which are estimated from survey data adjusted by income tax statistics for undercoverage of high incomes. The estimates on tax incidence have not been published previously but were developed for purposes of this monograph.

Income taxes in Canada are levied on individual tax returns as there are no joint filing provisions. Income taxes for the selected years were first assigned to the individual income distribution by size of individual income. For each year, survey data were available on individual incomes by size; these were adjusted by taxation data for undercoverage of upper incomes. Survey and taxation data by size of income are available on a reasonably comparable basis; the main differences are that transfer payments are largely non-taxable and not reported on tax returns.

Cross-classifications were available from the survey on the distribution of individual incomes by size, by the size of family income. These relationships were used to allocate aggregate taxes paid by individuals to the appropriate family income level.

**1961 CENSUS MONOGRAPHS
DOMINION BUREAU OF STATISTICS
OTTAWA, CANADA**

INCOMES OF CANADIANS

Jenny R. Podoluk

URBAN DEVELOPMENT IN CANADA

Leroy O. Stone

TRENDS IN CANADIAN MARKETING

M.S. Moyer and G. Snyder

TRENDS AND FACTORS OF FERTILITY IN CANADA

Jacques Henripin

LABOUR FORCE STUDIES

The following by Frank T. Denton and Sylvia Ostry

Historical Estimates of the Canadian Labour Force

Working-Life Tables for Canadian Males

The following by Sylvia Ostry

The Occupational Composition of the Canadian Labour Force

Provincial Differences in Labour Force Participation

Unemployment in Canada

The Female Worker in Canada

Geographic Composition of the Canadian Labour Force

The above are the first studies to be published of the Census Monograph Programme and are expected to be available intermittently, in separate English and French editions, from the Queen's Printer and the Dominion Bureau of Statistics (Publications Distribution Unit) during 1968 and 1969. The list will be augmented as work on other studies progresses.

1279 4 - 14

